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# Field incentive systems for electrical contractors

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**Field incentive systems for electrical contractors**

by

Michael Eugene McArtor

A thesis submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Civil Engineering (Construction Engineering and Management)

Program of Study Committee:
Russell Walters (Major Professor)
Edward Jaselskis
William Duckworth

Iowa State University

Ames, Iowa

2002

Graduate College

Iowa State University

This is to certify that the master's thesis of

Michael Eugene McArtor

has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy

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## ABSTRACT

With the costs of labor rising and supply of skilled labor workers dropping, the contracting industry as a whole, and specifically, the electrical contracting industry is beginning to feel the effects of a labor "dry-spell". Arguably there are several solutions to this set of vexing circumstances, but one solution is swiftly gaining acceptance and widespread use among those employing contract labor. Incentive systems, or methods by which companies can additionally compensate employees for outstanding performance and conformance to company goals, are becoming prevalent in the United States.

The ideal incentive system is one that through its implementation allows a company to accomplish their goals, whatever they may be. This makes the design procedure for incentive systems trial and error based, but allows great flexibility with respect to what is measured, how it is measured and what level of performance will be rewarded. This report details the design criteria, methods of creation and important characteristics for a fictional company's incentive system. This design example not only provides a framework by which other electrical contractors can model their own incentive systems, but also encompasses the teachings from various other successful incentive programs from companies such as Lincoln Electric Company.

The system designed in this report has been used to evaluate operational data provided by an actual electrical contracting firm to verify its usefulness and validity. These checks as well as additional statistical methods for checking other incentive programs are included to allow companies to assess their own programs.

Competition to secure the best field labor between electrical contracting firms will continue to grow as the supply for these individuals diminishes. Companies wanting to ensure that their goals and needs are met in the future will need more than the traditional methods of compensation. Incentive systems based upon employee merits can aid in solving this supply and demand problem and also recruit and retain outstanding personnel who are willing to accept responsibility for the company's goals in exchange for additional compensation.

# CHAPTER 1. INTRODUCTION

Any economist, upon being asked, will be able to relate the law of supply and demand that drives the exchange of goods in this country. This law also governs the wages and salaries certain individuals can be paid for their services. In the majority of business enterprises, companies are free to pay more to employees that exhibit greater skills or abilities at their particular jobs in order to compensate them for their contribution to the company. In a few enterprises though, this is not always the case.

The construction industry relies heavily on the labor supplied by organized unions. The unions, in anticipation of securing better benefits for the whole rather than the few, bargain collectively to obtain the best wage for all of their workers. This wage is often increased not based upon skill or ability but rather on longevity. The longer a worker has served in a union the greater their pay wage. For instance, a superintendent can expect higher wages than a journeyman, who expects higher wages than an apprentice. Personal ability does come into play when deciding who among the workers are fit to become general foremen or superintendents, but the percentage of workers who reach this level is small compared to the overall card-carrying members of the union. Also the wage scale for each of these promotional positions is set within the framework of the union leaving a company little room to use competitive pay scales.

This creates a dichotomy within the construction industry, how does a company reward an employee for outstanding service when the company must pay wages commiserate with the existing union pay scale? The curse and the gift of the union labor system is that each worker of equal standing in the union can expect the exact same wage on every job. This gives the union greater bargaining power when determining which workers will be sent to which jobs. The bargaining power is further augmented when the supply of skilled labor is down and the demand is up, as seen in the past ten years of construction activity. Thus a company can not withhold benefits or compensation from union employees lest they break their union agreements or risk having their labor needs go unfulfilled by the employees who can expect their minimum wage rate on any other project with any other company.

In simple terms, this is a discussion on competition; a competition between companies to secure the best field labor for their projects. The importance of competent, well-trained field labor in the construction industry cannot be overstated. With the legal climate geared toward holding the company liable for the actions of the workers as well as the complexity and speed increasing for the norm of projects, the abilities of the field labor will directly affect the success or failure of the project at hand.

This situation creates a very important need in the industry. Providing incentive to outstanding field labor to work more productively as well as safely and, most important of all, want to work on your company's projects.

## The Psychology of Incentives

The human need for better shelter, food and security has been a guiding light in most societies since the dawn of civilization. The promise of better food led our most prehistoric ancestors to begin agriculture. Ancient Roman city-states provided security and shelter in exchange for labor, and feudal society was built around the owner of the land providing security so his workers would provide him with better shelter and food. This exchange of basic human needs has been simplified in today's society. Currency has replaced the tangible rewards of the past by giving the recipient the ability to purchase their own shelter, food and security. The abundant availability of these human needs in America has given rise to luxuries that are highly sought after, but again require currency to obtain.

To the question at hand, what can we compensate our workers with which will supply them with these items (shelter, food, security, luxuries) that are, in fact, the actual reasons they work so hard. The agreements between contracting companies and unions create limited opportunities for compensation. A union member can expect an excellent benefits plan, retirement, and perks all provided and guaranteed by the union. The only link the company that hires union employees has is pay. They pay the employee's wages, including the benefits mentioned, for the time spent on their projects.

In this respect they are not the typical employee of the company. Their contribution to the company is more closely a leasing of individuals rather than directly employing individuals which governs the typical business relationship. Currency, the accepted form of

compensation, can provide the tangible, human needs that employees need. Thus a company can provide currency as a motivator to employees to encourage them to supply the needed drive to accomplish a company's goals.

The premise that money is the proper incentive for greater performance is highly contested by many of today's researchers and managers. Reward's critic, Alfie Kohn in his work *Punished by Rewards*, lists several ways that incentive plans fail. Simply put, some of these ways are:

1. Lack of necessity- when the employees are already doing a fine job, why further compensate.
2. Secrecy- lack of knowledge about how pay structures work and the assumption that the "next person" is making more can destroy morale.
3. Pay doesn't match performance- the two are not adequately linked.
4. Expense- the expense of such a plan is too great
5. Too big versus too small- too little incentive provides little motivation, too large of an incentive will increase expense and prevent a wide distribution of incentives.
6. Short-term versus long-term- if incentive payments are too frequent employees may sacrifice long term performance for short term rewards; if incentive payments are too infrequent then the connection between performance and pay diminishes.
7. Objective versus Subjective- a too objective evaluation will cause rigidity and may not reward the proper persons, a too subjective evaluation is dependent on the whims of the evaluator.
8. Performance evaluation is an exercise in futility- employee evaluations are often inaccurate or subjective.
9. Pay is not a motivator- making money is not always a person's primary motivator.

Rather than debate these problems in this format, the incentive system developed in this report will attempt to address these issues, but in the interest of initially justifying the creation of the system, the first and the last point will be examined.

As to the lack of necessity, many will say that they are paying the agreed upon wages for field labor so why must they be required to increase compensation for better performance.

The answer to this stems from the discussion on competition earlier in this work. In times where demand is high and worker availability is low, extra steps must be taken to secure the best performers for your projects. When this is not true, demand is low and worker availability is high, incentives can still attract the better grade of workers to your projects, which is especially of importance if profit margins are tight.

The point to consider for any incentive system is whether or not the end will justify the means. If a paying out of 10% of your company profit secures you 15% more profit, then it's a good investment. Viewing the incentive system as an investment in your future profit should be the justification for additional compensation above a typical pay scale.

When determining if pay is a good motivator, the argument for this report is not whether there is a superior method of motivation, but rather how can we use the tool that is given, money. Previously we established that money is the most immediate and tangible link between the company and the field labor, and given this link, we will attempt to make it as effective as possible.

Without delving into the various psychological theories on how to properly motivate persons to work harder, this section sought to simply provide basic justification for using money as a possible and viable motivator. At the very least this method of compensation is common enough among the business world to provide an immediate understanding and acceptance by the majority of workers that it is a desirable reward. One has only to walk the aisle of a bookstore or library and countless works with examples of a monetary compensation system can be found. One such work that will be referred to is *Compensation, 5th edition* by Robert Sibson who is one of the leading minds in compensation business theory.

## Incentives across Industry Boundaries

One of the most interesting and applicable uses of incentive-based pay occurs in the commercial trucking industry. In this industry there is a wide variety in the skill of commercial drivers with little formal methods available to help potential employers know who the superior drivers are, and there is a demand in the industry greater then the supply of

available personnel. This situation is strikingly similar to the position many electrical contractors find themselves in.

The commercial trucking industry, in compensating for their own difficult set of circumstances, are turning toward merit-based and incentive-based pay systems to help them retain the outstanding personnel for their company and create a sense of ownership among their employees.

A good example is the program instituted by USA Motor Express based in Florence, Alabama (Huff 2002). The company created a standards-based incentive program called Team USA for their commercial drivers. To qualify for the plan, drivers must keep out-of-route miles under 10 percent. Their miles per gallon and fuel cost must match the average of the top 50 percent of drivers, and they must keep idle time under 45 percent. Also they must have no preventable accidents. The incentive is a $1,000 savings bond each fiscal quarter and an additional $1,000 savings bond to drivers that qualify four straight quarters.

Essentially this program has two goals. Reward their top echelon of drivers with a $1,000 incentive and encourage longevity with the company by providing an additional incentive if they have four straight qualifying quarters.

This program has allowed the company to grow by 50 percent or more power units each year since its inception in 1996. They also are able to boast that the company has been profitable since day one of operation.

Employees Express trucking lines of Houma, Louisiana has created a slightly different program (Kelley 2002). This company sets aside a portion of their profit, usually around 33% for an incentive payment to their employees at the end of the year. The money is allocated to the employees based upon a point system that reflects each employee's income and number of years served. For every year the employee has worked at the company they get five points, and for every $1,000 they earn in salary they get one point. Then the company divides up the money based upon their relative point totals and deposits the money into a retirement account.

This plan encourages driver retention by rewarding seniority and by using a vesting system. Employees do not gain full access to their account until they are with the company for five years. If they leave the company after only two years they will only control 40% of

their account. The effect of the program can been seen in Employee Express recruiting, they actually have waiting list of drivers hoping to go to work for them.

There are also examples of companies like Quality Distribution who give pay increases based upon merit alone (Nicholas 2002). This company has one pay rate for all their drivers and increases are made based upon merits such as on-time performance and miles traveled with out an accident or ticket.

Within each of these programs, there are elements of merit and incentive based programs that combine to form an excellent tool for rewarding good employees and keeping them with the company.

Another example of a successful incentive system comes from a technical staffing service called Mid-States now known as ENTEGEE (Glenn, McAdams, and Zielinski 2000). This example is appropriate because they provide temporary help to other companies for a fixed fee, plus incentives provided by Mid-States. This situation mirrors the labor staffing used by unions in that it is of finite duration and the employees basically serve two entities at once: the company they have been temporarily assigned to and the umbrella company that they belong to. Mid-States rewarded employees on a "Bucket Plan" by which each of six fictional buckets were filled with cash from profits that the company accrued. When one of the buckets was full, no matter when this occurred, then the company made a payout. The size of the buckets was determined by the companies pretax profit goal for that year.

The remarkable effect of this plan was not in its design or implementation, but in its results. When the study of the plan completed, the company was paying out an average of 15.6 percent of an employee's base pay per year. In conjunction with this, was the fact that the average base pay of all Mid-State's employees only increased 1 percent per year during the seven-year study period. Thus the incentive plan largely replaced annual base pay increases as a primary employee incentive.

The importance of these programs is that it proves two points. Incentive and merit based plans are effective methods of accomplishing company goals and they all share the common method of making payments from company profits based upon a formal program.

An industry not represented above is manufacturing. Looking for a successful and long-standing incentive program operating in a manufacturing environment requires no

further research than Lincoln Electric Company. In 1941, demand for welding products skyrocketed with the eruption of World War II. Lincoln Electric Company found itself in the enviable position of supplying fully half of the welding needs of the United States and net sales soared from $13.6 million in 1940 to $24 million in 1941 (Dawson 1999). With qualified workers made scarce by the need for able-bodied men and women for the war effort, Lincoln Electric found an answer to training and retaining personnel during and after the war by using their fledgling incentive program.

The program set aside a large portion of their yearly profits for the program that, at its peak, allowed bonus payments of 60 percent to 100 percent of an employee's base pay (Dawson 1999). The result of this program was that the Lincoln Electric workers produced at four times the rate of their nearest competitor. According to J.F. Lincoln, the company founder, the high productivity of his workers was "because of the fact that they [employees] own the company and share in its profits" (Dawson 1999).

The success the company garnered with the incentive program gave Lincoln an opportunity to further clarify his philosophy on incentive systems. In 1946, Lincoln's first book *Lincoln's Incentive System* contained the passage: "Incentive management is more like a religious conversion. It is not a spur to the man to speed up; it is a philosophy of work. It is not a method of getting more work for less wages; it is a plan for making industry and all its parts more useful to mankind" (Dawson 1999).

In the modern era, Lincoln Electric Company continued to refine their incentive compensation program. The program now exhibits a direct link between profitability of the company and the bonus, since in its earlier operation this relationship was usually arbitrary. The bonus is awarded if the company's financial objectives are met and the individual's performance warrants.

Lincoln Electric Company's success with their program proves two key components in the impetus for developing and using incentive systems. The first is that higher productivity is achievable by giving the employees a stake in the company's profits. The second is that a properly constructed incentive program is not a gimmick or a quick fix to solve a company's problems, but rather a shift in management philosophy that requires confidence in the system from the top executive to the floor-sweeper of the company.

## Electrical Contracting as a Unique and In Need Entity

The discussion on incentives so far has not remarked upon the uniqueness of the electrical contracting industry. Certain industries have a reputation as commonly utilizing incentive systems. The software developing business, commercial trucking, investments and product sales all are well-known users as well as the management levels of the construction industry.

The need for an incentive system in the electrical contracting industry is becoming more imminent as the days pass and this is especially true for the field personnel. According to *Electrical Contractor's* "2001 Guide to the Electrical Contracting Market", there were approximately 700,000 field employees available in 2001. Given the growth projections for the upcoming years, this figure appears to be short of the need for field labor by more than half. In response, NECA and the IBEW are beginning outreach programs to graduating high school seniors, and remedial math courses to assist applicants in passing the math portion of the apprenticeship test. Even if these programs prove a resounding success, there will still be a shortfall in available labor in the immediate years. This will guarantee that competition for good employees will increase to a fever pitch and contractors will be required to find ways to ensure their projects are adequately staffed.

To satisfy this need, an incentive system will need to be tailored to the electrical contracting industry. This industry is rare in the sense that two companies, with equal legitimacy, can call themselves electrical contractors even if they have never completed any type of work that the other has. For instance, a company that installs high voltage power lines has little to nothing in common with a company that does fiber optic cable installations, but they are both under the umbrella of the electrical contractor field. This diversity creates special challenges in a design for an incentive system that meets the needs of all contractors who are in the electrical field. This challenge will be addressed in more detail in the sections dealing with the design of the incentive system, but it is important to recognize this rarity in the business world.

## Thesis Organization

This thesis has been written and designed around a research project commissioned by the Electrical Contracting Foundation with a grant by ELECTRI'21. This research project has been included as Chapter 2 Field Incentive Systems for Electrical Contractors and elements and passages of the general introduction and conclusions sections have been included within the research project report.

The purpose of the project was to determine if there is value added in using an incentive-based pay system for field personnel, the characteristics that must be in place for it to be feasible and the best way to implement such a system. Additionally the study provides guidance for development of merit-based pay systems that will enhance overall productivity and allow firms implementing such systems to maintain or develop a competitive advantage in their labor markets.

# CHAPTER 2. FIELD INCENTIVE SYSTEMS FOR ELECTRICAL CONTRACTORS

A paper to be submitted to the Electrical Contracting Foundation. This Electrical Contracting Foundation research project has been made possible by an ELECTRI'21 grant. The project has been conducted under the auspices of the Foundation's Center for Research Excellence.

Dr. Russell Walters, Todd L. Sirotiak and Michael McArtor,

**Abstract**

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## Introduction

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In simple terms, this is a discussion on competition. A competition between companies to secure the best field labor employees for their projects. The importance of competent, well-trained field labor in the construction industry cannot be overstated. With the legal climate geared toward holding the company liable for the actions of the workers as well as the complexity and speed increasing for the norm of projects, the abilities of the field labor will directly affect the success or failure of the project at hand.

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To satisfy this need, an incentive system will need to be tailored to the electrical contracting industry. This industry is rare in the sense that two companies, with equal legitimacy, can call themselves electrical contractors even if they have never completed any type of work that the other has. For instance, a company that installs high voltage power lines has little to nothing in common with a company that does fiber optic cable installations, but they are both under the umbrella of the electrical contractor field. This diversity creates special challenges in a design for an incentive system that meets the needs of all contractors who are in the electrical field. This challenge will be addressed in more detail in the sections dealing with the design of the incentive system, but it is important to recognize this rarity in the business world.

## Characteristics of Change

Companies like to have indications, prior to the start of a new program, that the program will be ultimately successful. The decision to design and use an incentive system can also be reviewed and checked against a few basic criteria to determine if the implementation will be successful. In this case, successful is not necessarily phrased to mean

that the program will produce the desired effect, rather that there will be acceptance of the program from the beginning by management, administration and the employee-stakeholders.

Incentive programs are often viewed by the people it will be evaluating not as a positive, but as another instance of George Orwell's classic, *1984*, coming true to life. The idea that "Big Brother is watching" can create mistrust and fear among the employees if they believe the program has not been generated to reward the outstanding, but to seek out and punish the underachiever. That is why the first characteristic of change that must be in place before beginning the incentive program is communication. The employee-stakeholders must be included in the design process to the point that they feel comfortable with the evaluation criteria. This can be in the form of an employee forum or an informal lunch with a few members of the workforce to allow them a "sneak peak" at the program before implementation. This will not only head off possible problematic criteria, but give the employees confidence that the evaluation criteria is really in place to reward and not to punish.

With respect to each of the key players in the incentive program: management, administration and employee-stakeholders, a few key characteristics and responsibilities should be in place during or before design of the plan.

The diagram in Figure 1 describes the relationship between these three parties. Management is responsible for generating the goals and criteria that will be evaluated. The selection process for the goals will be discussed in Designing the Incentive System, but management must have a prior grasp on what goals they want to accomplish with the program and what criteria is the company capable of measuring. For example, while it might be desirable for a company to measure the installation speed for a fuse, if the company installs thousands of such fuses a year, then it might not be a feasible measurement to track.

Some form of administration or clerical staff will be required to run the program. Are the assets in place to do so? If a company has a minimal administration staff, then they probably do not have the ability to implement a large incentive plan. The resources available for the design and implementation of the program need to be checked to ensure the program can be run once it has been designed.

Finally the employee-stakeholders have to exhibit two basic traits to justify the incentive program. There must be a willingness to accept responsibility for the company's goals and a commitment to a new method of incentive compensation. Historically some companies did not obtain this support prior to the program and the program was still a success, but with today's unionized workforce, it is better to be safe than sorry. With regard to most programs, the minimum an employee can make is their agreed upon base salary, so employees have nothing to lose from accepting the program and everything to gain. This should be emphasized during these opening discussions concerning the program.

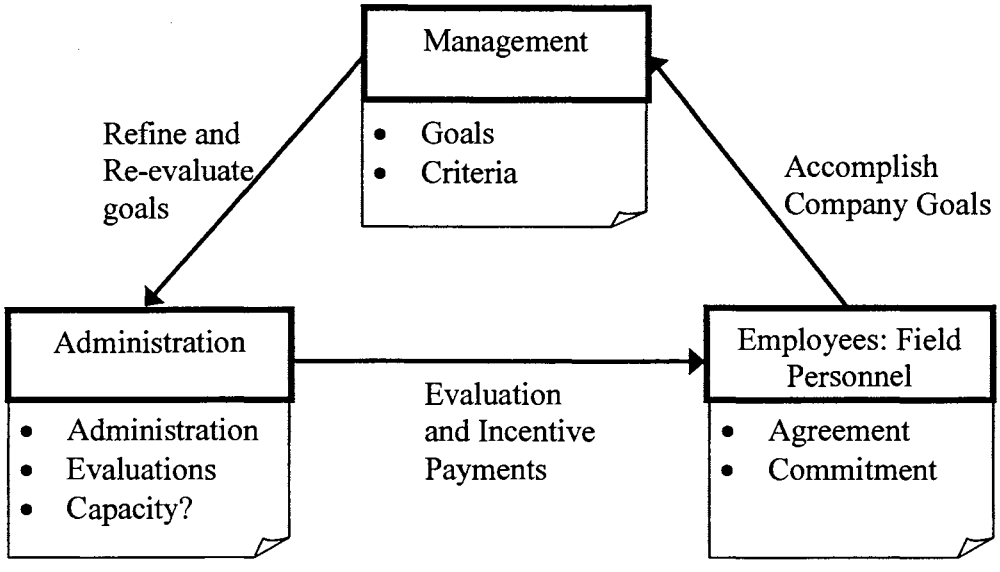



**Figure 1. Requirements and Expected Results for the Incentive Program**

## Designing the Incentive System

The first question to ask in designing a new incentive system is what is the expectation of the system? Or in simple terms, what is it supposed to do? It would seem unfair to ask any company owner, board of directors or human resource manager to implement an incentive system if some benefit was not expected from it. After all, the incentive system's operation will include giving a substantial part of the company's profits to

the employees in addition to their regular wages. Most would expect benefits similar to the following list:

- Increase profits
- Increase safety awareness (decrease accidents)
- Increase adherence to company policies
- Increase reliability and performance of schedules (accurate work projections and increased work rates)
- Increase loyalty to the company (decrease turnover rates)

It should be noted at this point that the design of this particular incentive system is not stating how it should be done, but rather how it could be done. A company must evaluate their own needs and set their own goals when designing their incentive system. The system that will be designed in this work is seeking to satisfy each of the following goals, but dilution of substance is a concern in incentive systems. If a company has specific concerns that need to be addressed, tailoring the incentive system to target those concerns will produce a greater impact than a more general plan where the targeted concern is mixed in with secondary concerns.

Robert Sibson from his work *Compensation, 5th edition* recommends that goals should be as objective as possible to avoid distrust or confusion among the employees. Goals such as "improve morale" or "improve the quality of life" lack substance and seem to have hidden agendas. Defined goals such as "reduce employee turnover to 10%" or "increase profits by 3%" are more effective and will assist the company is assessing the worth and progress of the incentive system. Additional suggestions and checklists for tailoring your company goals and incentive system will appear in the section on Tailoring Your Incentive System.

For the sake of this design, the company goals will encompass all of the listed goals above. This will also serve to be a beginning point for other companies to augment or focus their systems based upon this model.

Looking at the basics of a compensation program, Sibson has generated eight ideals upon which the incentive program for electrical contractors can be constructed.

**Basic #1: Serve All Stakeholders**

An incentive system must always seek to create a balance between the owner-stakeholders and employee-stakeholders. In the case of this incentive system, the employee-stakeholders are the field labor, and the owner-stakeholders are the ones looking to accomplish the goals set forth by the company. By its very nature, incentive plans are an exchange program. The owner-stakeholders give a portion of the profits to the employee-stakeholders to accomplish their goals. The employee-stakeholders provide the "horsepower" to drive the company to the goals in exchange for additional compensation.

The owner-stakeholders should view this as an investment in their company goals. A company can function and make a profit without having clear goals and the employees, especially the field labor, will provide the necessary input to see that this happens without understanding or care for the company goals. The incentive plan seeks to make the employee-stakeholders accept responsibility for accomplishing the company goals by including them in on the rewards should the company do so.

For the majority of union personnel, their goals are to have steady employment, make a good wage and avoid injury. Some might argue that another goal is to have quality workmanship, and companies certainly hope this is on their field labor's mind, but this is more a function rather than a goal. Notice there was no mention of company goals such as "increase profits" because they can accomplish their goals without involving themselves in the company's relative success or failure. Not that this is a cause for blame, few would accept responsibility for a set of directives that one felt like they were not compensated for the risk to do so or they felt like they had little control of their success. The incentive system is placing the goals of the company before the employee, asking them to take responsibility for them, and compensating them for doing so (Hessen 2000). As a result, this system should balance the responsibility that the employee-stakeholder accepts with the incentive the owner-stakeholders supply.

**Basic #2: Keep It Simple**

Being able to effectively communicate the incentive plan to your employees will be of paramount importance once implementation is begun. How else can one expect the employees to focus on the goals of the incentive plan if they do not understand how their individual performance contributes to the company goals and thus their incentive? Keeping the plan as simple as possible will make it possible to communicate the plan to the employee-stakeholders in such as way as they do not believe there are hidden agendas or unfair provisions in the agreement.

Second, a simple plan will allow for simple administration. Incentive plans will inevitably create additional paperwork and administration that must be done in order to effectively run the program. If the program is straightforward and clear then it will require less work and less training time among those responsible for its operation. An incentive program does not have to become a burden to administer and many companies will find that their plan can be suffixed onto their existing employee evaluation programs.

In effect, a good incentive program can be measured jointly by its result, and by its simplicity.

**Basic #3: Start by Identifying Compensation Needs**

The creation of an incentive plan is to solve a problem within a company. Given that truth, a company must know what problems must be solved in order to properly institute an incentive plan. Identifying those problems to be overcome by the incentive plan should be via the same process a company goes through anytime they perceive a problem. Thus, as with any endeavor of this sort, the company needs to make an accurate assessment of their problems. Bringing an incentive plan into use to solve a problem that doesn't exist or the wrong problem will inevitably convince the company that the incentive plan has failed when in fact it never had a chance.

Sibson recommends a three-step process to accomplish Basic #3 that is equally applicable to the electrical contracting industry. First, the company must identify a clear and compelling need. As discussed in the first paragraph, identifying that a need exists is the first

validation for the incentive program. Without a clear need, why not just keep the profit within the company?

Second, the need and the solution (incentive plan) must have a clear connection or in other words it must solve the problem. If a company is ready to commit a large percentage of their profits to the program, a "maybe" or "hopefully" is not going to satisfy the owner-stakeholders.

Finally, the value of the program must be greater than the cost. A value to cost ratio of 4 to 1 is suggested since cost estimates can often be vague. A company must not forget the costs associated with administration of the program as well as the final payout every assessment period.

**Basic #4: Group Employees Properly**

When deciding how to allocate the profit to the various employee-stakeholders, it is customary to create a distribution of the net profit to each group. An example for a company distribution could resemble Table 1.

**Table 1. Sample Profit Distribution**

Electrical Contractor

| | |
|---|---|
| Executive | 20% |
| Management | 25% |
| Estimating | 20% |
| Company Investments | 25% |
| Field Labor | 10% |

This distribution structure is a greater concern if your company already has an existing incentive or profit sharing program, but still a consideration when dealing with only field employees. When the company organizes their program the distribution of profit among the various job types (project manager, journeymen, clerical staff) must be done to provide

the proper level of incentive to each group. While there is not a "canned" set of numbers that can be recited to give a company the desired outcome, the incentive system developed in this report is based upon typical ones seen in the industry and thus can serve as a starting point. Some levels of trial and error and "what-if" scenarios are necessary during the set-up time of any program to get the mix just right.

Within the subject of field personnel, a company can either choose to recognize and utilize the union designations (apprentice, journeyman, foreman, etc.) to determine the groups or not. Non-union contractors may choose to group employees by years of service or treat all the same. The decision to do so or not is based largely upon the need that the program is trying to solve. If retention of senior personnel is a problem, then it would behoove a company to recognize these differences.

**Basic #5: Have a Proper Process for Developing Compensation Programs**

It goes without saying that most companies are different in some way, and as a result often have different challenges and problems. This will require some level of customization of any incentive program. As stated before, an incentive program's primary purpose is to solve a problem, so that problem should always be the starting point for any program. Many companies find utilization of a checklist a good method to develop a program and the one presented below is based upon Sibson's recommended process.

**Sample Checklist for Developing an Incentive System**

1. Identify needs, problems or opportunities, focusing on such methods as:
    - Data analysis
    - Reported issues
    - Discussions with project managers
    - Discussions with field personnel
    - Discussions with other employees
    - Personnel audits
2. Develop objectives

- Set specific goals
- Consider impact on other human resources programs (existing profit sharing programs or bonus structures)
- Schedule (implementation, frequency of payouts)
- Consider resources available (current financial standing, profit projections)

3. Conceptualize the answer early in the work at first broadly, considering:
    - Company characteristics
    - Competitive practices
    - Company culture
    - Employee reactions
4. Testing and specific program design, which may involve:
    - Legal, tax and accounting considerations (how the program in practice affects financial factors such as cash flow and investments)
    - "What-if" scenarios and modeling (testing the program for loop-holes, inconsistent results and unintended rewards or punishment)
    - Evaluation against company plans and forecasts (an opportunity to recheck the program's value and costs against the company's future earnings)
5. Implementation
6. Evaluating the effectiveness of the program
7. Review

The first five basics have covered the first four sections of this checklist. The last three sections are covered by the last three of the basics.

**Basic #6: Program Design Must Reflect Company Culture**

A program tailored to producing an incentive for field personnel will be faced with unique challenges. There are long standing and highly ingrained preconceived notions between management and labor that could interfere with a successful implementation. Labor might be inherently distrustful of any new initiative proposed by management, and

management may not be able to accept the idea that labor is being additionally compensated over what they perceive as a healthy wage.

Unfortunately there are no simple solutions to these obstacles. The best combatant to these problems is open communication about what the problem is that the plan is attempting to correct. Owner-stakeholders will need to accept the fact that the incentive plan will make the company stronger and assist them in creating a more elite workforce. Employee-stakeholders will have to be assured and shown that the goals of the plan are also in their best interest without undesirable side effects.

Overall the program must be sympathetic to the existing culture of the company. The institution of a rigorous and review intensive program will not mesh with a company who has a casual, informal management style. It is pertinent to ask when developing the incentive program, is this program similar to management initiatives that have been produced in the past, and will the employee-stakeholders accept this style or amount of observation?

**Basic #7: Install a Formal Program**

The new incentive program should be formalized with standards and application rules that are communicated and understood by both the owner-stakeholders and employee-stakeholders. A formal program will be trusted and, in turn, more effective because the rules of the program, if followed properly, produce the desired reward and effect. A program that is either based upon or seemingly based upon arbitrary factors will give the employees a "pennies from heaven" perspective on the program. This means that when they are rewarded, they will not believe it is from their own outstanding performance, but rather from some unseen benefactor who drops the reward into their laps.

The importance of a formal program should not be misconstrued as meaning an elaborate program. The necessity of a formal program is to create a belief system on the part of the employee, and an elaborate or complex program that the employees do not understand will most likely create a program they do not trust.

**Basic #8: Be Skilled in the Art of Managing Change**

Nobody is perfect. This simple, yet true, statement applies to the business of creating an incentive system. The managers who operate and apply the incentive system must be skilled in the art of managing change. The program will most likely need fine tuning and adjusting after the implementation has begun. Changing the program "midstream" might produce adverse reactions on the part of the employee-stakeholders who believe the program being changed is a sign of upper management's changing priorities.

As is typical in the construction industry, communication is the panacea of many of the problems in the trade, and it can help solve this problem also. When the program is introduced, if a problem has slipped past the early tests and "what-if" scenarios, it is better to change the program to ensure it will produce the desired effect rather than allow it to continue working towards the wrong goal. Communication with the employee-stakeholders and keeping them involved in the implementation process can alleviate fears and confusion during the fine-tuning phase.

After all, an employee rarely begrudges a company its goals and a company has little to be ashamed of when it comes to its goals. Goals such as "increase profit" and "improve safety" can be translated to "ensure there is a company for you to work for in the future" and "ensure you go home in the same condition you showed up in". So if changes must be made to make certain the program accomplishes the goals it was designed to meet, then including the employees in on the reason for the change can assist the manager in this process.

**Basics to Specifics: Designing an Incentive System for Electrical Field Labor**

In designing an incentive system for field personnel, one of the driving factors in this design was to have the finished product serve as a framework from which other companies could customize for their own uses.

For ease of discussion, the company for this design example will be called Sparks Inc. and as a starting point, the design goals for this incentive system are:

- Increase profitability (by project) by 10%
- Decrease EMR by 0.1
- Increase schedule conformance to have all projects finish within their estimated man hours (assuming the original estimate was nearly correct).
- Increase marketing efforts by the field personnel (target one referral per employee per year)
- Increase retention of experienced, certified and well-trained personnel (Keep the top performers from previous jobs to new jobs, as manpower needs allow)
- Increase conformance to company policies and job tasks (general, proper attire, and customer relations)

In the forthcoming design each of these goals will be address with a category, or several categories, within the overall incentive system. The discussion from Sibson's eight basic rules of incentive system design encompasses the issues that are pertinent to this design, but for the sake of clarity, the salient points will be touched on again.

For this case, the Sparks Corporation has decided to address several issues. They wish to increase their profit, lower their EMR, improve schedule performance, increase market share, increase retention of top employees and increase conformance to company policies and standards. This is hefty list of items, but they represent many of the solutions to common problems that companies will experience. In the listing of goals, they are specific as possible and include specific target goals to allow easier assessment of the effectiveness of the program. Sparks Corporation has decided that they will include all persons who work on at least one project of theirs during the year, and the incentive plan will be run yearly.

While this list of goals is fairly large, it is not comprehensive in its coverage; these and other possible evaluation categories are presented on page 28.

One of the most difficult determinations that must be made when designing an incentive system is how much profit needs to go to the program. Too much profit committed means the company has less money to invest. Too little profit committed, and the program will lack sufficient reinforcement for the evaluated behavior.

**Possible Job Evaluation Criteria**

| | | |
|---|---|---|
| Profitability | Attire | Peer Reviews |
| Safety | Expenses | Record Keeping |
| Schedule | Equipment Treatment | Mentoring |
| Marketing | Documentation | Company Time |
| Client Feedback | Policy Adherence | Change Order Management |
| Paperwork | Recruitment | Pre-Planning |
| Education/Training | Tool Expense | Meetings/Leadership |

There is not a magic number that can be suggested, but as a practical response, the profit invested in an incentive program should be evaluated the same as any investment the company is undertaking. If the future benefits and earnings for the program justify the upfront development and yearly costs then the program can be seen as a good investment. Reviewing historical data provided by the report "Individual Incentive Programs" by The Conference Board shows in Table 2 the relationship of median payments as a percentage of wages/salaries for 28 companies across several industries (financial services, trade, manufacturing, utilities and diversified services).

**Table 2. Median Payments as Percents of Wages/Salaries (Parkinson 1995)**

| Number of Plans | Minimum | Typical | Maximum |
|---|---|---|---|
| 28 | 1.0% | 11.7% | 17.8% |

Given this information and the average union electrician's yearly earnings of $50,000 ($25.00 per hour for 2000 hours) a typical, yearly incentive payout would be around $5,850 per field employee based upon those industry standards. Suppose the example company, Sparks Inc., is a medium sized electrical contractor employing thirty union electricians throughout the year. They could expect to spend between $15,000 and $267,000 with a typical payout of $175,500. If Sparks Inc. performed $6,000,000 of work per year with a pretax gross profit margin of 20% then they would set aside approximately 14.6% of their

yearly profit for the program. Using a yearly projection similar to this can give a company a starting point for their program. If 14.6% of a company's profit is too big a share to set aside, then the percentage payouts could be reduced to 5 or 6 percent rather than 11.7%.

The minimum payment of 1% in most programs is established as a cutoff incentive. If there is not enough money in the program to pay at least 1% to each employee-stakeholder, then no payments are made. This is to ensure that employees do not receive a dollar amount so low that it discourages rather than encourages them to participate in the plan. Each plan administrator should designate what the minimum payment is for their plan based upon how rigorous their plan is. For example, a plan that requires little effort on the part of the employee could have a very low percentage set as a minimum incentive. As a contrast to a plan with very rigorous requirements, the minimum payment must be higher or risk angering the employees.

Companies may also wish to place a maximum payout on the program to ensure that there is some measure of predictability in the costs. While this number must be set and communicated to the employees, there is not a certain percentage or number that can be recommended. Each company will need to evaluate their needs and decide if a maximum percentage should be set. The incentive system designed in this report has leveling built into the formulas which attempt to limit any one employee receiving a disproportionately high bonus, but exceptions can and will occur.

It should be noted that the information presented on typical incentive payouts included two industries (financial services and diversified services) that have a history of high incentive-based earnings, thus one could expect a respectable payout for the construction industry would fall between the minimum and typical percentages. This would match with a percentage payout of closer to 5 or 6 percent as suggested above.

Assuming Sparks Inc. has decided 14.6% of their profit is too great a payout and they choose a 6% target, then they can expect to spend $90,000 or 7.5% of their yearly pretax profit on the program. This figure does not include the administration costs that can be estimated separately using the company's existing estimating methods.

Recapping the criteria for this design, Sparks, Inc. has set the following goals:

- Increase profitability (by project) by 10%
- Decrease EMR by 0.1
- Increase schedule conformance to have all projects complete within the allocated man-hours
- Increase marketing efforts by the field personnel (target one referral per employee per year)
- Increase retention of experienced, certified and well-trained personnel (Keep the top performers from previous jobs to new jobs, as manpower needs allow)
- Increase conformance to company policies and job tasks (general, proper attire, and customer relations)

Sparks, Inc. has decided to spend 7.5% of their yearly projected profit or $90,000 on the initial program. In the interests of keeping this fictional example as applicable as possible, Sparks Corporation's financial information is being modeled off of the averages reported in the *2000 Electrical Contractors' Financial Performance Report.*

Now that the company has chosen their goals and the amount they are willing to spend, then there must a methodology for how to link job performance and the appropriate monetary reward that helps the company accomplish their goals. This is accomplished through employee evaluations.

## Employee Evaluations

In industry today, approximately one-third of companies with incentive compensation plans utilize employee evaluations (Parker, McAdams and Zielinski 2000). Rather than using evaluations, companies can use market pricing and market classification to determine the level of fair compensation. In the case of field labor this is not an option. Wages, for all field electricians, are set prior to their individual employment by a company. This does not leave the option open to allow market factors to determine compensation. The response to this problem is to use employee evaluations.

The methodology used in employee evaluations has changed little in fifty years. The methodology, as illustrated in Figure 2, requires the evaluator to measure an employee's job duties against a predetermined yardstick in order to determine relative job worth.

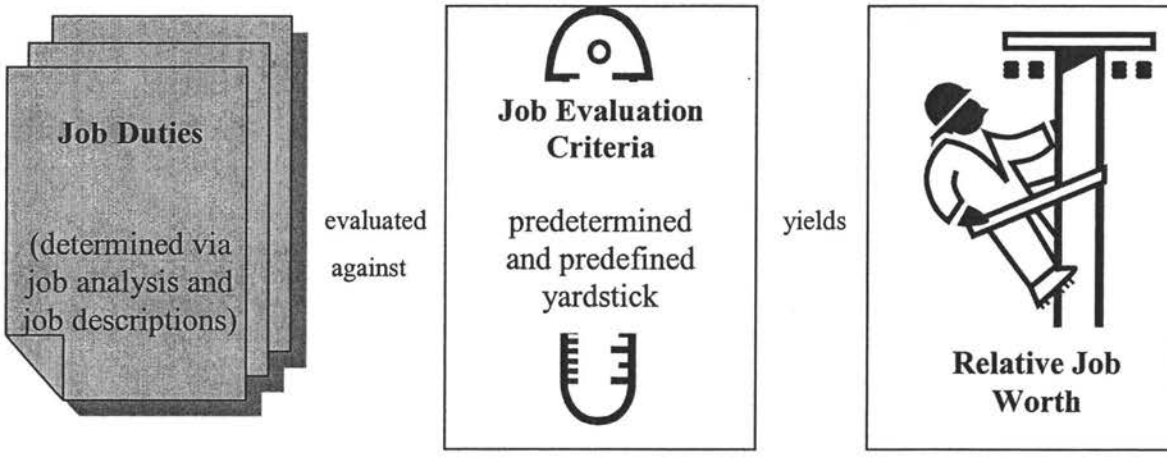



**Figure 2. Employee Evaluation Methodology (Sibson 1990)**

In the interest of creating a quantifiable scale, the employee's "Relative Job Worth" can be calculated using a point value system. Simply stated, a point value system is one in which criteria are evaluated on a separate scale for each factor and weighted points are assigned based upon the relative worth of the criteria. In some cases this point system may have an easily determined weighting, such as in the case of safety statistics where one injury is much better than three injuries, or it may be more arbitrary, such as assigning points based upon how appropriate one's attire is.

The advantages of a point system are that it creates a clear record of evaluation criteria of the past and lends itself to statistical methods that will assist in determining the effects of the program and assist the company in administrating the program.

Matching the company goals to applicable job duties with appropriate point criteria is the next challenge in the design of Sparks Corporation's incentive system. There will be four total General Categories: Profitability, Safety, Job Tasks and Marketing. Since the goal at the top of the list is profitability that will be the starting point for the evaluation.

total General Categories: Profitability, Safety, Job Tasks and Marketing. Since the goal at the top of the list is profitability that will be the starting point for the evaluation.

**Profitability**

One of the most difficult yet critical factors to assess is profitability, especially as it relates to field electricians. Invariably the question of productivity will arise as it applies to profitability. When most managers discuss the effectiveness or efficiency of their field personnel it is in reference to their productivity. The problem stems from the fact that productivity covers a limitless spectrum of possible activities all of which have different impacts upon profitability. Asking a manager to keep track of productivity on each employee to the level of detail required to establish an evaluation would be a monumental and costly exercise in documentation.

Rather than undertaking this time-consuming challenge, one can assess profitability without determining specific productivity. By informing field electricians that a good portion of their yearly bonus is tied to the overall profitability of the projects they work on will induce them to work at their best possible speed without requiring additional monitoring.

This really serves two purposes; it will tie company profitability to individual project profitability, which the field electricians have a direct impact upon, and by assessing profitability by project it will create a team mentality among the workers. If a worker knows that a person is not pulling their weight in the field, and they know their bonus will suffer because of it, they will "self-police" their workforce by either weeding out those that can not handle their share of the work or attempt to assist that worker to bring them up to speed. Furthermore, a worker that finds they are falling behind due to a lack of ability in a certain skill area will be more likely to seek out specific training, even at their own cost, if they know that they will be reimbursed via the incentive program when their improved performance results in increased rewards.

To create a point system from profit, there must be a weighting factor that can determine the relative point value for this category. For this design, the point total is obtained by dividing the Total Project Profit by Planned Project Profit and multiplying by the Weight Factor. For instance, if the weighting factor is set at one, then it is worth one point if the

employee matches the profit goal of that particular project. The greater reward comes from this fraction returning a number greater than one, which occurs when total project profit exceeds the planned profit. This is emphasized because we are attempting to increase profits not maintain.

The weighting factor is not as critical in comparisons from employee to employee because they will each receive the same number of points for the same level of increase, thus it makes little difference to them if the weighting factor is one or five as long as it is the same for all employees. Where this index value is important is how it is compared to the other categories we are evaluating. Since the weighting factor determines how many points we put into this category, we don't want profitability to have too large or too small an impact.

If Sparks Inc. sets a design target of about 25 points for an average employee then they can check the importance of profitability against that number. Assuming a good crew can exceed profit expectations by about 25% then the profit factor would be 1.25. If the weighting factor were set at 6, creating a total of eight points, then profitability would be about 1/3 of the total points for an employee, which is acceptable. If a company wishes to emphasize profitability above all else then this weighting factor could be set at a much higher number such as ten or even twenty.

The question of whether to include change orders in determining overall profit is up to the company. Typically, the profitability of change orders can be measured the same as initial profit projections, thus Sparks Inc. has decided to include that in their formula.

In order to account for the fact that an employee could work on several jobs in a year's time, then each project's profitability can be determined and then points assigned based upon how long the employee worked on that project. The equation can then be applied to each job and the point values totaled. In Equation 1, the formula to determine profitability is presented.

(1)

$$\frac{\text{Total Project Profit}}{\text{Planned Project Profit}} \times \frac{\text{Hours Assigned to Project}}{\text{Total Work Hours in Plan Cycle}} = \text{Points}$$

Working hand-in-hand with profit is the ability of the project to finish on schedule. One of the company goals was to increase schedule adherence so no project finished with more man-hours than it was originally allocated. Granted change orders can increase the schedule for a project, but Sparks Inc. will only evaluate based upon contract work. A percentage criterion, similar to the profitability equation, will serve to create the point system as shown in Equation 2 and for this evaluation the points will also be determined and weighted by how long an employee served on a particular project.

(2)

$$\frac{\text{Planned Man hours}}{\text{Actual Manhours Used}} \times \frac{\text{Total Weeks on project}}{\text{Total Work Hours in Plan Cycle}} = \text{Points}$$

This scale should be applicable to projects of different lengths. Most companies have projects with a wide variety of schedules ranging from a few hours to a few years. There will be occasions when projects are continuous across several incentive periods. This can be handled in a few ways.

The company can delay incentive payments until the project is complete. This may require the company to properly weight this type of project to compensate the employee for having to wait for the bonus until the later date. The company may also go ahead and take a "snapshot" of the project's status when the incentive period ends. This will allow the company to be up to date on the project and provide more immediate incentives to the employees. Finally, the company instead of running the program on a yearly or other time-based assessment period could run the program on a project by project basis. This would allow the program to be up to date on each and every project and give the employee an immediate incentive payment when the project is complete.

Each method has its advantages and disadvantages; the first method requires a minimum of administration while the next two, by providing more immediate payments, do a superior job of tying performance to incentives. The second option has the obvious problem that if a project has a strong start but a poor finish, then the company might have to withhold further incentive payments to cover the premature payments on a project that went bad. This issue

and others on tying performance to the incentive program is further explored in the section on Tailoring Your Incentive Program.

The two equations presented above will complete the profitability evaluation category. They will be evaluated for each employee and the projects they served on.

**Safety**

The safety category has been created and tailored to produce two effects. First, the category will reward employees for attending all safety meetings that employees are required to attend. This will encourage attendance at the meetings and, in turn, help the company issue statements and information concerning their safety program. Each company can decide to what level to take this category. In this case, assume Sparks Inc. has four company-wide meetings per year which all employees are required to attend, these are in addition to daily "toolbox talks" and other safety meetings. Each meeting attended is worth two points.

The company also wishes to reward employees who go "above and beyond" the call of duty and attend additional safety classes not affiliated with the company. For example an employee that attends a certified 10-hour OSHA or C.P.R. course will receive points for this. For each approved outside course the employee attends, the employee is rewarded with two points.

To encourage on site safety conformance, Sparks Inc. will penalize each employee two points for every lost time accident the employee has in the program year. This is non-cumulative, so an employee that is injured in this year has the slate wiped clean in the next year.

These three point-evaluations within the safety category will seek to lower company injury rates, and thus insurance rates, but also to foster initiative and communication among the workforce.

**Job Task**

Each employee, in addition to their labor output, is usually required to perform some other administrative or documentary functions. At the Journeyman level this might be the accurate reporting of work output or keeping track of tools and materials used. At the

foreman level this could also include timekeeping and reports to superiors. Superintendents could be expected to perform additional timekeeping and management level tasks such as scheduling and estimating, as well as manpower loading.

The point being that each employee's dedication to these tasks is instrumental in the proper operation of any company. Their ability to accurately report their progress and status has ramifications not only to the project at hand, but future estimating and planning efforts. In order to encourage this dedication, points are awarded for this category. For each of these tasks the employee completes satisfactorily, the employee is awarded three points. To keep this category properly balanced Sparks, Inc. must decide which tasks are required for each employee classification. The following list will serve for this purpose.

**Job Task Requirements by Job Title**

Apprentice/Journeyman

Required to report work output properly and timely

Foreman

Required to report work output properly and timely

Prepare and submit accurate timekeeping reports

General Foreman/Superintendent

Prepare and submit accurate timekeeping reports

Prepare monthly status report accurately and submit timely

Prepare manpower loading report accurately and submit timely

Notice that as the hierarchy increases, so does the number of required tasks. This will give the highest potential reward to the parties accepting the greatest amount of responsibility. In this category is the possibility to provide reinforcement to other new programs such as a best practices or benchmarking plan. The company can make a job task that corresponds with a critical function of one of these other programs to ensure that the program is given the proper consideration by the employees.

If these job tasks are of extreme importance the point value for these job tasks can be increased accordingly for emphasis.

**Marketing**

In the case of the contracting business, each employee is a salesman to a greater or lesser degree. The field employee's interaction with the community at large is often overlooked as a viable and vital resource for the growth of business. The marketing category seeks to tap into this resource by awarding points for field employees who identify sales opportunities for the business.

If an employee identifies a reasonable opportunity for the company to attempt to secure the work, then it is worth one point to the employee. If the opportunity results in an actual work award, then it is worth an additional two points for the employee. Furthermore, if an employee identifies a reasonable opportunity that is unpublicized, meaning it has not yet been submitted as public record or for other companies to look at, then it is worth two points. If the unpublicized opportunity results in an award, it is worth an additional three points.

Note that this category could become very rewarding for an employee and this is done intentionally to increase field employee's initiative and awareness of the company's marketing. For example, if an employee submits one unpublicized opportunity and the company is successful in securing the work, then it is worth five points to the employee. If our approximate total point per employee estimate is around 25, then a five-point increase is approximately a 16% increase in reward.

## Discretionary Categories

Companies might choose to add additional categories to encourage adherence to company policies, company standards for customer care or other discretionary items. In this incentive system design, assume Sparks Inc. is a service-oriented company that requires adherence to a dress code and employee customer service policy. If these items are not important or if your company has other concerns, with little effort these categories can be tailored or eliminated to fit your company needs.

Also in this category, the company can create the incentive for skilled workers to stay with the company by rewarding years of service and certifications held by the employee. In order to keep this category simple and rewarding, for each certification (union or trade recognized) that the employee holds, it will be worth one point. This will be kept track of yearly, thus one certification held will be worth one point each year. This will also hold for any additional training courses that the company recognizes, thus they will also be worth one point.

For years of service, Sparks Inc. has divided up the points scales as follows:

**Table 3. Years of Service Points Award**

| | | |
|---|---|---|
| Years of Service: | 0-2 years or (0 to 4,000 hours) | 0 points |
| | 2-5 years or (4,000 to 10,000 hours) | 1 point |
| | 5-10 years or (10,000 to 20,000 hours) | 2 points |
| | 10-20 years or (20,000 to 40,000 hours) | 3 points |
| | 20+ years or (40,000+ hours) | 4 points |

This point total will be awarded each year, but not cumulatively, thus an employee with eight years of experience will receive two points to their total until they reach 10 years, then they will receive three points.

It should be recognized that there are pros and cons to awarding points based upon service years. On the pro side, there is an increased emphasis in the program for an employee to work as many years as possible with that employer, thus securing personnel for future projects. This is based upon the idea that keeping an employee already trained in your company's procedures and methods are value added to your company. Thus the additional incentive payout is offset by the additional value they bring to your business.

On the con side, having an employee that has worked for the company a longer time period does not necessarily make them a more valuable employee. It is extremely difficult to evaluate employees based upon their individual skill set and provide incentives based upon

this information when there is no system in place to measure their individual skills. Most skill levels in the industry today are based upon subjective comments on that employee such as "they are a good hand" or "they know their stuff". As a result, this category should be undertaken with caution and understanding of its limitations. If a company is interested in awarding an incentive to employees that show basic loyalty to the company by working for them when possible, then this category is applicable. If a company wishes to reward employees who are the best skilled workers, then it will probably not accomplish this task.

**Policies**

The question will arise in administering the incentive program, how do we handle an employee who has been fired, quit or had major policy violations during the incentive program? The answer to this question is really up to the administrator and management of the company. If the employee had a minor policy violation or quit for an acceptable reason, then it may not reduce their incentive at all, except to limit the number of hours worked. On the other hand, if the employee had a major policy violation and was fired because of it, then perhaps the incentive would be reduced by half or withheld all together.

No set of rules or points category can replace judgment and common sense, so it will be left up to administrators and managers to decide how to handle these occurrences.

## Other Possibilities

Additional categories can be created, almost at will, to supply the needs of the company. For this example, Sparks Inc. is a service-oriented company that has an approved uniform (attire) code, and has the customer complete a survey at the end of every project. In order to monitor these two focuses, the company can create two incentive categories to place a "spotlight" on these operations. The only limitations to the creation of a new category is to make sure the points dedicated to the new category is in balance with the rest of the program and appropriate to the amount of emphasis the company wishes to place on that issue.

With this design example, where the total points will be around 25 for an average employee, creating a single category that could add ten points would place a great value upon itself and, in turn, devalue the importance of the other categories. Some amount of review

and judgment needs to be used to ensure the adding of categories is done in conjunction with the goals of the overall program.

**Absenteeism**

A common compliant among contractors is that project performance suffers when a workforce has a high incidence of absenteeism. An incentive system provides a ready-made framework for controlling absenteeism. Most companies regularly track attendance and record unexcused absences. Creating a category to take advantage of this information that already exists is fairly simple.

Two possible approaches to a point scale system for this category are to deduct points for unexcused absences or set a maximum number of unexcused absences that will be tolerated before an employee is removed from the incentive program. In the latter example, if a company sets a limit of five unexcused absences, when an employee reaches the sixth unexcused absences, they are notified that they are no longer eligible for the program.

Companies will have to be able to have a method in place for determining when an absence is excused or unexcused, but that question is one best left to each individual company.

As for a point system that deducts from the point total, this system could be as simple as deducting one point or ½ a point for each unexcused absence. The amount deducted should reflect the company's concern with absenteeism. With this type of point system, an employee with three unexcused absences could be penalized three points. If the average point total expected were 25 points then this would be a deduction of 12% from their incentive payment. With an average payment of $3,000 this would coincide to a $360 deduction. Obviously if an employee has too many unexcused absences their point total will eventually be reduced to zero or negative points, removing them from the plan.

This category is provided here as a possibility, but it will not be included in the Sparks, Inc. example in the interest of keeping their program as uncomplicated as possible. The other categories presented below will be incorporated into the design example to show how they, and other categories like them, can work.

**Attire**

At the end of the incentive year, an employee's direct supervisor is asked to make a judgment on each employee's adherence to the uniform code by giving him or her a rating. If the employee receives an "Always" appropriately attired rating, it is worth 2 points, an "Often" rating is worth 1 point, a "Sometimes" is worth 0 points, "Rarely" subtracts 1 point, and "Never" subtracts 2 points. This scale is shown below. Again, if this scale is published and the employees are aware this is an incentive item, then they will have the means at their disposal to either secure or reject additional compensation for themselves.

**Table 4. Attire Point Scale**

| Attire is: | |
|---|---|
| Always Worn | 2 points |
| Often Worn | 1 points |
| Sometimes Worn | 0 points |
| Rarely Worn | -1 points |
| Never Worn | -2 points |

**Client Feedback**

Assuming a company, such as a service oriented company, has the client complete a feedback form at the completion of each job and this form has been used and trusted for some period of time, then it too can become part of the incentive program. Employees who receive high ratings can be rewarded for their diligence to customer satisfaction by securing additional points in the program. Granted, there can be indexing and customer-apathy problems that render client feedback either unusable or biased, but if a company has surveys they trust then the law of averages can work to keep this category fair. Thus a company can create a category with a point scale as shown in Table 5.

As a reminder, these types of categories are by their very nature subjective to some degree. They should be included in the incentive program only if they are based upon a

trusted evaluation method that the company either currently has or will implement with a degree of confidence in its proper function.

**Table 5. Client Feedback Point Scale**

| Client Feedback: | |
|---|---|
| Very Positive ("4" rating on the survey) | 2 points |
| Positive ("3" rating on the survey) | 1 points |
| Neutral ("2" rating on the survey) | 0 points |
| Negative ("1" rating on the survey) | -1 points |
| For every formal compliant received | -2 points |

**Summary**

The three examples shown here will certainly not work for every company, but they are examples of the type of evaluations that can take place in the program. Some amount of tailoring and customization will most likely occur in the first few iterations of the program and it should be understood by all owner and employee-stakeholders that this will take place. This topic leads to the next section of the design process.

## Tailoring Your Incentive Program

The purpose of this section is to highlight the underlying issues and concerns of tailoring an incentive program. As with most programs of this type, there are exceptions, problems and obstacles to a successful implementation that should be recognized. First such concern is how to deal with the problem of certain employees always ending up on the "bad jobs". Most companies will put their top performers on the most difficult and risky jobs to minimize their potential exposure or losses. With an incentive plan geared toward rewarding employees who work on the profitable jobs, where is the incentive to work on the tough, unrewarding projects?

To compensate for this scenario the company must be willing to adjust their profit and schedule categories to give these projects a possible positive outcome with respect to the

incentive program. For example, if a project has been accepted at cost, then the profit scale could be adjusted to reward employees a few points if the project does end up breaking even. This could also be done for a project with an extremely aggressive schedule, where the employees are rewarding if the project is only a few weeks late versus a few months. The overriding message is that the program can be flexible as well as fair. In a very real sense, it must be flexible to be fair.

There might also be problems with employees attempting to "work the system" or find ways to artificially increase their incentive without actually completing the tasks for which the program was originally designed. One of the most effective ways to combat this problem was stated earlier: keep it simple. A simple program will have fewer loopholes and hidden formulas that employees can exploit. Also, as mentioned above, a program must be flexible to be fair, thus if it is discovered an employee has chosen to try and secure an inflated award, then the program must be modified to exclude the opportunity from presenting itself.

Another tailoring possibility for an incentive program is to give individual awards to certain employees who perform well in the incentive plan. Not necessarily tangible awards such as more money or trips, but recognition of their achievement. For instance, in the design example, for the top three point's leaders each year, Sparks Inc. could recognize the "Sparks Top 3" with a notice in their company newsletter, dinner certificates and an engraved plaque to take home. This is a simple way to further recognize outstanding effort among the employees as well as creating a sense of friendly competition among the employee-stakeholders.

One of the other ways to tailor an incentive program is to change the payout frequency. Rather than yearly, the program could be completed biannually or even quarterly. Granted this will increase the costs of administration to some degree, but employees will receive positive reinforcement on a more frequent basis. The frequency of payments is more a question of overall company size and feasibility rather than a question of linking pay to performance.

As a suggested rule, payouts should not coincide with a Christmas or end-of-year bonus. Employees typically see these types of payouts as a "gift" from the company and not

as an incentive payout for outstanding performance (Sibson 1990). Avoiding this timeframe will reinforce to the employee that the incentive program requires specific performance to secure the better payments.

The opportunities for specific tailoring can be as varied as necessary to accomplish the goals as set forth by the company. The problems and suggestions above are common to all sizes of incentive programs as they apply to a large, medium or small company. This is not always the case, especially for electrical contractors where companies vary from one and two man operations to multi-national giants, no one incentive program design can fulfill all of their needs.

**Small, Medium, Large or Super-Sized?**

The design example in this report was based upon a medium sized company with revenues of around six million dollars a year. According to *Electrical Contractor's* "2000 Profile of the Electrical Contractor" this size of the contractor does have common threads with electrical contractors of varying sizes. For example, as seen in Table 6, the percentage of contractors of all sales volumes who were involved in certain types of work were doing so at roughly the same frequency.

The point being that if there is a common distribution of work then it stands to reason that they share common labor needs. Then the question is really one of scale rather than needs, and the incentive program should be modified to handle the additional or diminutive scale of each electrical contractor.

One of the greatest differences in small contractors versus large contractors is how well they know their workforce. A larger contractor that travels from location to location, each time establishing a new dialogue with the local union or workforce has different challenges from a smaller contractor who works only locally and all of their employees have worked from them for the last ten years.

The larger company will not be able to evaluate categories that involve highly individualistic evaluations because, on an eight-month job with two hundred field personnel, time will not allow it.

**Table 6. Percentage of Contractors Performing Types of Construction (McKenzie 2000)**

| Size of Business | New Construction | Modernization | Maintenance/Service |
|---|---|---|---|
| Under $250,000 | 76% | 79% | 94% |
| $250,000 to $999,999 | 91% | 86% | 92% |
| $1.0 to $2.49 million | 95% | 83% | 91% |
| $2.5 to $9.9 million | 96% | 86% | 87% |
| $10 million and over | 98% | 88% | 90% |

Also a larger company may not anticipate having work in a certain area very often thus the goals of their program are to attract the better workforce initially and reward them in such a way that should the company return the outstanding field labor will want to work for them again. A smaller company will not require the "big bang" similar to the larger company rather they will have the opportunity to use the program as a building block upon which employee relations can be improved over the years. So the issue of difference in contractor size is more aptly considered as a question of scale of the incentive payment and complexity of the program that provides it. To expand upon this ideal, a set of recommendations for a small, medium, and large company are below.

**Small to Medium Contractor**

- Increase the number of individualistic categories to highlight the differences between the fair, good and outstanding members of the workforce. With fewer employees, greater individual review is possible and will keep the program from issuing a similar incentive payment to each employee. Payments of roughly equal value will increase the employee's perception of the plan as a gift and not as a reward for specific performance. For example, categories on customer satisfaction, attendance, or appropriate attire are more easily implemented at the small contractor level.
- Categories such as Years of Service become more useful and rewarding. When a company has a more stable workforce they can use the incentive program to hold

onto good employees and attract new by providing additional compensation for additional years of service.

- When providing incentives to employees with specific skills or certifications, smaller market contractors will have an advantage in determining what each employee's abilities are. This will allow for easier administration and stronger incentives for the skilled field personnel to work for a company with an incentive plan.

**Medium to Large Contractor**

- Incentive programs should be simplified and focus on project-driven categories such as profitability and schedule. Contractors who do not have the ability to become familiar with their workforce must trade individual incentive categories in favor of creating a team-mentality among the workers. The project-driven incentive program will focus on creating a pool of money from which employees are awarded shares based upon the performance of the project as a whole. This will keep administration to a minimum, require little explanation to the workforce and potentially supply a large incentive or a "big bang" for a successful project that will serve as a reminder to the workforce of the benefits of working for your company.
- One of the potential strengths of the larger company is that the chances are they will have a formal employee review or evaluation already in place. This will make administration of an incentive program less demanding and the design of the system should work hand-in-hand with the existing evaluation system. After all, if an evaluation procedure already exists why invent a different procedure for the incentive plan.

In summary, the incentive plan, if properly matched to your company goals, should be able to compensate for the difference of scale between smaller and larger contractors. While some amount of tailoring, as suggested above, can produce a more effective program, with the proper allocation of resources any program is potentially viable. With the

watchwords of simplicity and fairness, modifying an existing program to work for a variety of contractor sizes does not require a major overhaul or special clauses.

## Implementation and Monitoring the Incentive Plan

The design has been completed; the employees have been informed of the evaluation criteria and the incentive plan structure. The next step is to implement the program. Included in Appendix A is a worksheet for the design example as well as an example of the worksheet in use.

The example of the worksheet in use details a foreman employee, Joe Sample, who has been on profitable projects and has put forth a better than average effort in most categories. His corresponding incentive payment for the year will be $3,489.70. As discussed in the design section, the target number of points for an average employee was 25 to 30 points and a payment of around $3,000. Given this sample employee is an example of a better than average performer, who obtained just over 39 points, then the plan is operating as envisioned.

The implementation of an incentive plan should involve free and open communication about the plan to all employee-stakeholders. It should be clear what actions are required to secure the best incentives. This will create a clear link for the employees to see how accepting responsibility for the company goals will be rewarded.

Monitoring the plan can be done in several different ways and basic statistics can prove to be useful in evaluating the program. In the case of an incentive program using a point scale, at the completion of the evaluations, the program administrator will have point totals for all the employee-stakeholders. This information can serve a variety of purposes within the company. For instance, assuming the evaluation criteria does not change, an increase in total points for any category can be seen as an overall improvement in that field. With respect to profitability, if the employee evaluation produces say 100 point total one year and 125 points the next, if company profits are indeed increasing, then it gives the company confidence this category is measuring profitability correctly.

Similarly, if a company does not usually track data in any of the evaluation categories, the incentive plan will provide a ready-made method to do so. One example is the

attire category. If the company never measured the compliance to their uniform policy before the program, then they will be able to see over the next few incentive periods how their attire program is performing. In the design example, as long as the total points awarded for the employees in this category continues to rise, and the evaluators are consistent, then it would indicate the employees are making a better effort to dress appropriately.

The basic statistical tools of mean, quartiles and standard deviation are helpful in monitoring the information obtained by the evaluations. These functions are available in most spreadsheet programs including Microsoft Excel. Other statistical software such as JMP will provide even more tools for analyzing this information. Some of the checks and balances that statistical tools can provide are:

Mean will:

- Identify how the average employee is able to perform.
- By comparing the overall point mean to the companies planned mean score (for the design example this was 25 points), the company can verify that the design matches the intent.
- By comparing means of various categories, the company can verify that each category has the "weight" that is desired.

Quartiles will:

- Identify which employees are performing in the upper and lower quarters as compared to their peers.
- Companies can use the upper quarter as a method of special recognition for those employees and even give out an increased payment if they obtain this level two or more years in a row.
- Verify that the range of scores is consistent with the intent of the design and there are not unexplained gaps in the point totals.

Standard Deviation will:

- Show the variance and spread of each category and the overall point totals. This will identify if the range is acceptable and can be used in year-to-year comparisons to determine if the employees are performing more or less similarly.

A more advanced statistics tool that can be employed is the confidence interval. In order to test if a category or incentive program as a whole is improving or just undergoing normal statistical fluctuations, confidence intervals can provide a measure of proof. Below in Table 7 is an example of using confidence intervals to establish a statistical change in a category.

At the 90% confidence level the test statistic in the profitability category for the previous six years is between 3.054 and 3.812 points. For Year 7's point totals the 90% confidence interval is 4.155 to 6.244 points, which does not overlap the previous six year's data, thus we can conclude with 90% confidence that Year 7 exhibited an increase in profitability points.

This is just a sample of the possible statistical applications for this data. Those trained in statistical methods will have additional methods to show improvements based upon the incentive program.

## Productivity and the Incentive Plan

After reading through the various categories and evaluation criteria put forth in this report, some readers are probably asking, what about productivity? In fact, many companies would list their primary goal in instituting an incentive plan to be increasing productivity.

The immediate response to this inquiry is, in the words of a famous pasta sauce commercial, it's all in there. When you look at the categories of profitability and schedule it is clear that neither one of these will benefit unless productivity goes up. Unless your estimating personnel have a history of overestimating man-hours, an increase in profitability and schedule compliance can be attributed to an increase in productivity.

**Table 7. Confidence Interval Testing Example for Profitability Category**

| Profitability Points | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---|---|---|---|---|---|---|
| Employee 1 | 3 | 3 | 2 | 3 | 3 | 2 |
| Employee 2 | 2 | 4 | 3 | 3 | 4 | 2 |
| Employee 3 | 4 | 4 | 4 | 3 | 3 | 4 |
| Employee 4 | 4 | 5 | 6 | 4 | 5 | 5 |
| Employee 5 | 2 | 5 | 6 | 2 | 2 | 5 |
| Mean | 3 | 3.4 | 4.2 | 3 | 3.4 | 3.6 |

Overall Mean = 3.433 Overall Standard Deviation= 1.223

90% Confidence Interval: 3.054, 3.812

| Profitability Points | Year 7 (new year) |
|---|---|
| Employee 1 | 5 |
| Employee 2 | 5 |
| Employee 3 | 7 |
| Employee 4 | 5 |
| Employee 5 | 4 |

Year 7 Mean= 5.2 Year 7 Standard Deviation= 1.095

90% Confidence Interval: 4.155, 6.244

Why not just include productivity as a category? The answer is you can. If your company has a track record of successfully measuring and evaluating productivity then there is no reason it cannot be an evaluation criteria. Electrical companies that perform repetitive or linear tasks such as underground electrical line installers will find adding a productivity category to be more feasible. Though, in the interest of simplicity and reducing

administration costs, why measure productivity, which is typically a time-consuming and inaccurate process, when the categories of productivity and schedule compliance already capture the spirit of productivity measurement.

If a company agrees with this line of logic then the next step to take is to prove it. Most companies, if not all, have some level of productivity measurement that they monitor on a frequent basis. So it is not too great a challenge to use these existing productivity measurements to assess the effectiveness of the incentive program.

The previous section discussed basic statistical methods applicable to an incentive program. Those same methods can be used by the contractor to reference improvements in productivity, or lack of, to the initiation and use of an incentive program.

If the use of statistics is not acceptable, there is a simple and direct method of plotting productivity that will highlight improvements. The contractor needs to choose one of the productivity measurements and plot the information on a graph. Then draw "control lines" which match the peak and minimum productivity outputs during the last few years or whatever time frame the contractor has past history records.

After the incentive program is instituted, then the contractor can continue to plot this information. If the contractor notices that the control lines have narrowed it shows that the productivity measurements have become more predictable, this implies less variance (shown in Figure 3). This can be one positive outcome of the incentive program. Productivity is not necessarily increased, but since the employees know what is expected of them then they work more predictability. This can be an asset to the estimating personnel who can now have more confidence in their estimates and leave out contingencies when bidding jobs.

The other positive outcome, an actual increase in productivity, can be seen when the lower control line for the productivity numbers, with the incentive plan running, begins to reach the average productivity performance prior to the start of the program (shown in Figure 4). Best-case scenario would be if the lower control line for the productivity numbers, after the program is implemented, are then above the upper control line prior to the program (shown in Figure 5). This would suggest that productivity has improved to such a degree that even normal fluctuations in productivity cannot explain the great increase, which would give evidence to the fact that the incentive program is a major contributor to the increase.

Those familiar with hypothesis testing will be able to utilize it to gather statistical proof of the same kind shown in these graphs. The visual representations shown are meant as a quick check method a contractor can use when monitoring the performance of their incentive plan.

## Evaluating the Design

The incentive system design for the fictional company, Sparks Inc., is based upon other successful incentive-based programs from the contracting industry and other industries. While the design is unique it is not unprecedented, but in the interests of a check on the functionality of the design presented in this report, the research team procured past operational data from a medium-sized electric company to do a hypothetical run of the system.

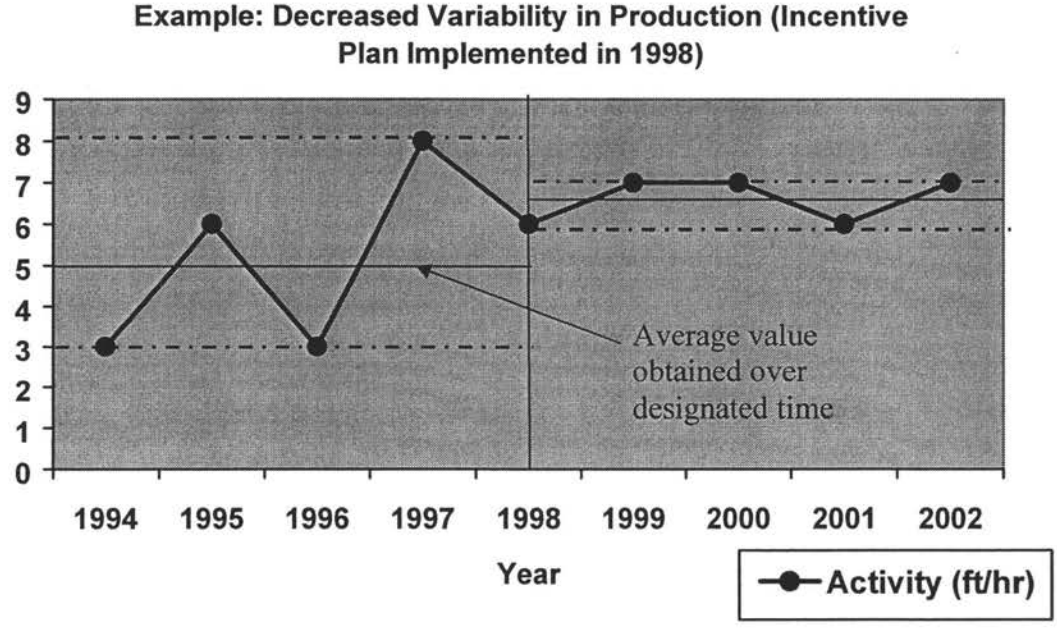



**Figure 3. Example of Decreased Variability due to Incentive Program**

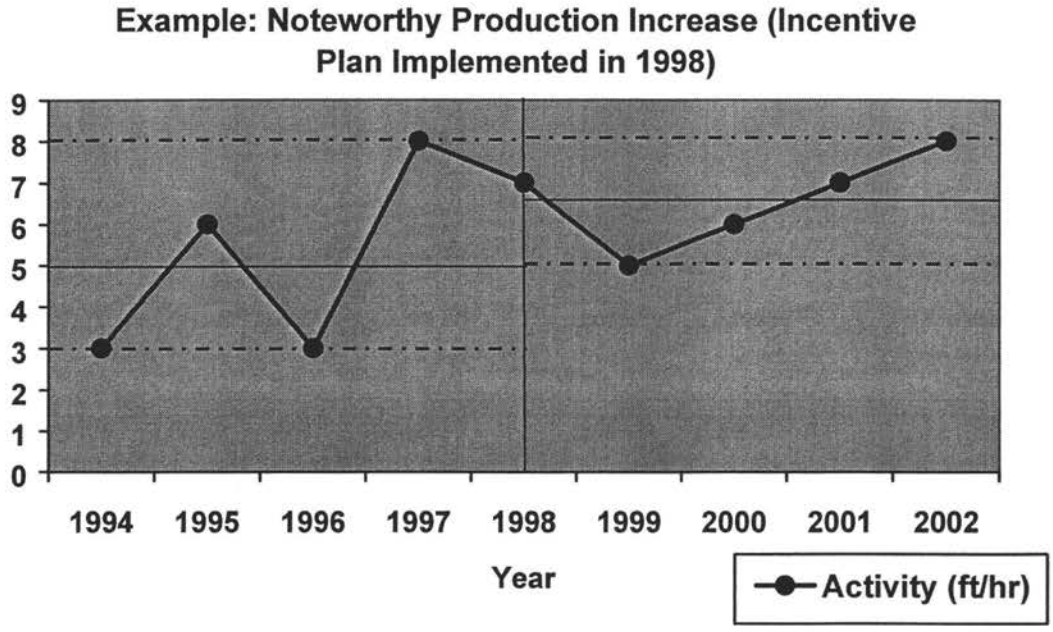



**Figure 4. Example of Noteworthy Productivity Increase**

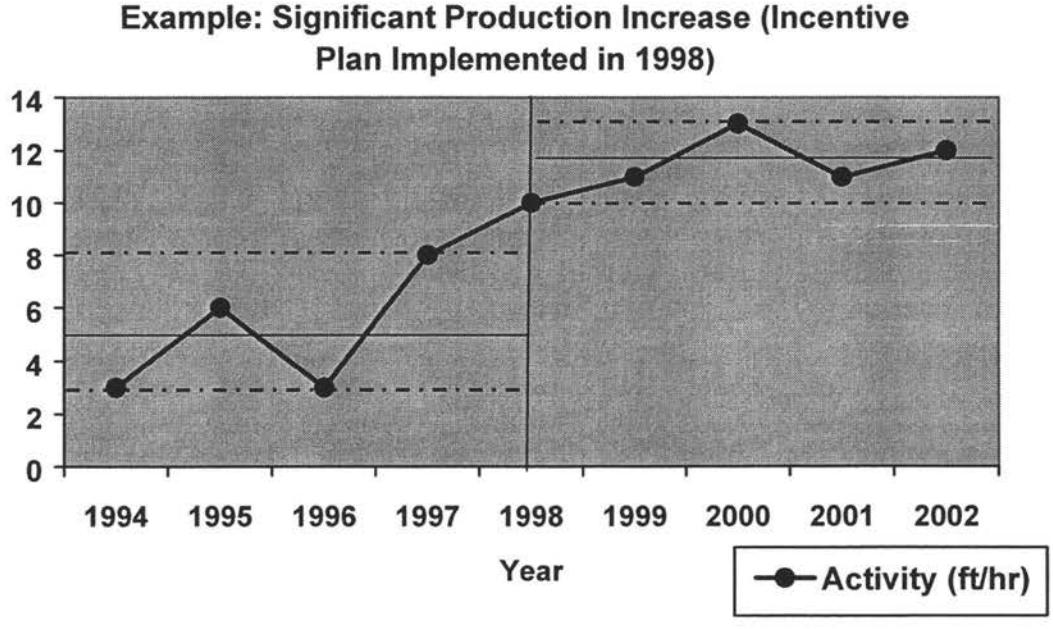



**Figure 5. Example of a Significant Productivity Increase**

The designed incentive system was run for three actual employees from the medium-sized electric company. In the interest of protecting that company's financial and operational data the names and locations of the jobs and employees are encoded or withheld. Included in Appendix B are the employee histories and job histories. Data required for the Schedule, Marketing, and Discretionary categories for the designed system was not available. In the interest of giving a full view of the potential of this system, information in these categories for these three employees was generated to complete their evaluations.

As presented in Appendix B, the three employees worked on a variety of projects, with Employee 1 and Employee 2 having worked on several of the same projects, though Employee 1 had a little over 300 more hours logged in during the year. The last employee, Employee 3, was included as a contrast to the other two, as he had only 1001.5 hours of work in the year and only worked on two projects versus five for the other two. One of his projects was extremely successful, the other only slightly so. This will contrast with the other two employees who logged longer hours on more projects with high profit margins.

The results, included in Appendix B, showed that Employee 1 received the highest bonus in the amount of $8,796.73 because he worked the most number of hours and worked on the most successful projects. This would correspond to a bonus of approximately 17% on his base wage earnings for the yearlong period (assuming he worked a base amount of 2000 hours overall). This is a healthy sized incentive payment and this was expected given that the data analyzed was from a very successful year. The second highest bonus went to Employee 2 with a bonus of $7,882.39. This bonus was slightly less because this employee worked 328 less hours during the year even though his project list included projects of similar success. Finally, Employee 3 received the least bonus at $7,576.54 because he only worked a little over a thousand hours, but the bonus is still a healthy payout because one of the projects he worked on was one of the most successful of all of the projects during the year.

This data highlights the potential payouts that can result from a highly successful year. For these three employees, they received incentive payments ranging from 17 to 15 percent. In terms of motivation, would any employee not be willing to put in some extra effort in exchange for a 15% increase to their wage earnings?

Arguments abound that increasing pay does not correspond to receiving increased effort, but given the choice of one company that rewards an employee for accepting company goals and one that simply pays the base wages, the question of employee motivation becomes a question of employee selection. In the forthcoming years when companies are competing to secure the best field labor for themselves, the question of selection will govern many potential employees' thoughts requiring companies to offer more than just the base wages that an employee could receive no matter what company they work for. Just as companies seek to offer unique services to their potential customers, companies will need to offer unique compensation to their field employees to ensure that the company can meet their own promises and provide an incentive to the company's customers to use their services in the future.

# CHAPTER 3. GENERAL CONCLUSIONS

The incentive systems developed in this report reflect and build upon proven methods of compensation plans. It is estimated that 90% of U.S. companies use some form of an incentive program (Berson-Besthoff and Peck 1992).

The contracting business is in no way a stranger to incentive programs especially among the managers and executives. To overlook the use of incentive programs for the field labor fails to recognize the teachings that Lincoln Electric provided more than fifty years ago. They proved that providing additional incentive to all employees and giving them a stake in the company's profits, whether they pushed a broom or managed a shop, resulted in higher productivity. It is said that a Treasury official searching for war profiteering, upon reviewing Lincoln's bonus payments, remarked that "no man who works with his hands in a factory is worth $5,000 a year". J.F. Lincoln turned this statement into his rallying call to change what he called the "wrongheadedness" of government. Lincoln felt that every employee who made a contribution to the company's bottom line deserved a share of the profits (Dawson 1999).

The electrical contracting industries, and the construction trades as a whole, are showing the strain of having a higher demand for their skills, but lower numbers of qualified workers. Incentive programs are an answer to companies trying to secure and retain the top workers as well as providing much needed enticement for the next generation of tradespersons. Stopping short of remarking that having any sort of incentive program is better than none, the program proposed in this report has roots in the lessons of Lincoln Electric, and also in effective programs across industry boundaries. It is an innovative hybrid of merit-based and incentive-based programs.

Unless the recruiting efforts of the IBEW and NECA prove successful in bringing in large amounts of able-bodied workers for the future, there will continue to be a shortage that must be addressed. Companies that utilize field labor will have few options to consider when faced with a growing bid list and a shrinking labor pool. Incentive systems have shown themselves to be solutions to this exact same problem in industries such as commercial

trucking and manufacturing. The belief that they will also work in the contracting industry is not too great supposition to undertake.

**Recommendations for Future Research**

The incentive program designed in this report has been constructed based upon other successful programs around the country and in various industries. The next logical step in this process would be a full implementation by an electrical contractor and monitor the program over a period of years. This would give a researcher the option of monitoring all necessary measurements as well as others that might be impacting the effectiveness of the incentive program. For example, the program might prove unsuccessful in certain parts of the country due to differing cultural attitudes of the workers.

Specific productivity measurements could also be taken during this time period to perform the hypothesis testing discussed in the section Implementation and Monitoring the Incentive Plan. This would be an opportunity to provide justification that incentive programs serve as a boost to productivity.

Incentive systems continue to be refined, developed and implemented worldwide. Companies have become famous for their innovative incentive system design, especially when the success of the program mirrors the success of the company. Software has been developed and is in use by companies that simplifies the evaluation and administration process. Programs such as the one developed by Synygy, Inc., who labels its software as "Turning Strategy into Performance", are very popular among the sales/retail business. While software of a similar nature does not exist for the contracting industry it is possible that it could be developed, especially when the criteria for most incentive programs are simple. The market for computerized, incentive programs for field personnel in the contracting industry is essentially untouched.

Most companies use homemade programs on Microsoft or other prepackaged software programs to monitor their current incentive programs and this should prove sufficient for the pilot studies and some further development of the field incentive systems. A specific program designed to handle a field incentive program would make administration easier and could possibly be linked to other estimating and scheduling software to minimize

repetitive data inputs. These are a few of the immediate possibilities in future research on this topic.

# APPENDIX A

## Sparks Inc. Sample Incentive Plan Worksheet

**INCENTIVE PROGRAM FOR ELECTRICAL CONTRACTOR FIELD LABOR**

**Name:** _____ **Evaluation Date:** _____

**General Categories**

**Profitability & Schedule**

| | Job 1 | Job 2 | Job 3 | Job 4 | Job 5 | Totals |
|---|---|---|---|---|---|---|
| Total Profit | | | | | | 0 |
| Planned Profit | | | | | | 0 |
| Percent Gain | | | | | | |
| Hours per job | | | | | | 0 |
| Weight Factor | 0 | 0 | 0 | 0 | 0 | |
| Hours/Total Hours | 0 | 0 | 0 | 0 | 0 | |
| Points | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | | | | | | |
| Planned Schedule (hours) | | | | | | 0 |
| Actual Schedule (hours) | | | | | | 0 |
| Comp. of Proj. (% variance) | | | | | | |
| Weight Factor | 0 | 0 | 0 | 0 | 0 | |
| Points | 0 | 0 | 0 | 0 | 0 | |

Total Points: 0.00

**Safety**

| | Total | Points |
|---|---|---|
| No. of Safety Mtgs | | 0 |
| Add'l Safety Classes | | 0 |
| No. of lost time accidents | | 0 |

Total Points: 0

**Job Tasks**

| | Total | Points |
|---|---|---|
| No. of Required Tasks (completed satisfactorily) | | 0 |

Total Points: 0

**Marketing**

| | Total | Points |
|---|---|---|
| No. of presentations | | 0 |
| No. of successful pres. | | 0 |
| No. of non pub. projects | 0 | 0 |
| No. of non-pub. project-succ. | 0 | 0 |

Total Points: 0

**Discretionary Categories**

**Education and Training**

| | Total | Points |
|---|---|---|
| Certifications | | 0 |
| Years of Service with Company | | 0 |
| Outside Training | | 0 |

Total Points: 0

| | |
|---|---|
| 0-2 yrs | 0 |
| 2-5 yrs | 0 |
| 5-10 yrs | 0 |
| 10-20 yrs | 0 |
| 20+ yrs | 0 |
| Total | 0 |

**Attire**

| | Points |
|---|---|
| Appropriate attire Worn | |

(Always=2,Often=1,Sometimes=0, Rarely=-1, Never=-2)

Total Points: 0

**Client Feedback**

| | Points |
|---|---|
| Client Feedback | 0 |

(Very positive=2, positive= 1, neutral= 0, negative=-2)

| | Number | Points |
|---|---|---|
| Client Formal Compliant | | 0 |

Total Points: 0

**SUMMARY**

| | |
|---|---|
| Total General Points: | 0.00 |
| Total Discretionary Points: | 0 |
| Total Points: | 0.00 |

| | |
|---|---|
| TOTAL POINTS FOR ALL FIELD EMPLOYEES IN PLAN: | |
| TOTAL BONUS POOL: | |
| VALUE PER POINT: | |
| 0 BONUS: | 0.00 |

_____ % of total company profit

# Sparks Inc. Sample Incentive Plan Worksheet (Completed Example)

**INCENTIVE PROGRAM FOR ELECTRICAL CONTRACTOR FIELD LABOR**

**Name:** Joe Sample (Foreman) **Evaluation Date:** _____

**General Categories**

**Profitability & Schedule**

| | Job 1 | Job 2 | Job 3 | Job 4 | Job 5 | Totals |
|---|---|---|---|---|---|---|
| Total Profit | 110,000 | 440,000 | | | | 550000 |
| Planned Profit | 83,000 | 399,000 | | | | 482000 |
| Percent Gain | 1.33 | 1.10 | | | | |
| Hours per job | 1000 | 1000 | | | | 2000 |
| Weight Factor | 5 | 5 | 0 | 0 | 0 | |
| Hours/Total Hours | 0.5 | 0.5 | 0 | 0 | 0 | |
| Points | 3.31 | 2.76 | 0.00 | 0.00 | 0.00 | |
| | | | | | | |
| Planned Schedule (hours) | 900 | 4350 | | | | 5250 |
| Actual Schedule (hours) | 852 | 4005 | | | | 4857 |
| Comp. of Proj. (% variance) | 1.056338 | 1.086142 | | | | |
| Weight Factor | 5 | 5 | 0 | 0 | 0 | |
| Points | 5.28169 | 5.430712 | 0 | 0 | 0 | |

Total Points: 16.78

**Safety**

| | Total | Points |
|---|---|---|
| No. of Safety Mtgs | 4 | 8 |
| Add'l Safety Classes | 1 | 2 |
| No. of lost time accidents | 1 | -2 |

Total Points: 8

**Job Tasks**

| | Total | Points |
|---|---|---|
| No. of Required Tasks (completed satisfactorily) | 3 | 9 |

Total Points: 9

**Marketing**

| | Total | Points |
|---|---|---|
| No. of presentations | 1 | 1 |
| No. of successful pres. | 0 | 0 |
| No. of non pub. projects | 0 | 0 |
| No. of non-pub. project-succ. | 0 | 0 |

Total Points: 1

**Discretionary Categories**

**Education and Training**

| | Total | Points |
|---|---|---|
| Certifications | 1 | 1 |
| Years of Service with Company | 8 | 2 |
| Outside Training | 0 | 0 |

Total Points: 3

| | |
|---|---|
| 0-2 yrs | 0 |
| 2-5 yrs | 0 |
| 5-10 yrs | 2 |
| 10-20 yrs | 0 |
| 20+ yrs | 0 |
| Total | 2 |

**Attire**

| | Points |
|---|---|
| Appropriate attire Worn | 1 |

(Always=2,Often=1,Sometimes=0, Rarely=-1, Never=-2)

Total Points: 1

**Client Feedback**

| | Points |
|---|---|
| Client Feedback | 1 |

(Very positive=2, positive= 1, neutral= 0, negative=-2)

| | Number | Points |
|---|---|---|
| Client Formal Compliant | 0 | 0 |

Total Points: 1

**SUMMARY**

| | |
|---|---|
| Total General Points: | 34.78 |
| Total Discretionary Points: | 5 |
| Total Points: | 39.78 |

| | |
|---|---|
| TOTAL POINTS FOR ALL FIELD EMPLOYEES IN PLAN: | 1026 |
| TOTAL BONUS POOL: | 90,000.00 |
| VALUE PER POINT: | 87.72 |
| Joe Sample (Foreman) BONUS: | 3,489.70 |

← 7.5 % of total company profit

# APPENDIX B

Incentive System Check Data

Employee Data

Employee: Employee 1

| Job # | Hours Worked |
|---|---|
| 221 | 850.5 |
| 265 | 286.0 |
| 277 | 200.5 |
| 228 | 218.0 |
| 036 | 97.5 |
| Total | 1652.5 |

Employee: Employee 2

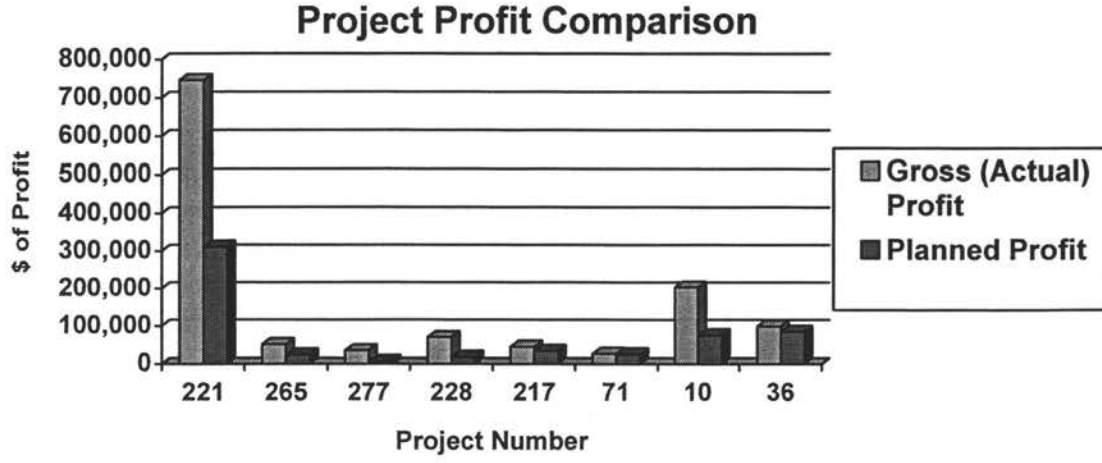
| Job # | Hours Worked |
|---|---|
| 221 | 732.0 |
| 265 | 251.0 |
| 277 | 43.5 |
| 217 | 114.0 |
| 071 | 141.0 |
| Total | 1324.5 |

Employee: Employee 3

| Job # | Hours Worked |
|---|---|
| 010 | 691.0 |
| 036 | 310.5 |
| Total | 1001.50 |

Project Data

| Project Number | Type of Work | Gross Total Profit | Planned Total Profit |
|---|---|---|---|
| 221 | Heavy/Highway | $746,438 | $311,628 |
| 265 | Commercial | $51,829 | $24,927 |
| 277 | Industrial | $35,858 | $7,482 |
| 228 | Industrial | $70,296 | $18,906 |
| 217 | Commercial | $45,387 | $34,394 |
| 071 | Commercial | $27,278 | $25,303 |
| 010 | Commercial | $202,578 | $75,571 |
| 036 | Industrial | $99,087 | $85,434 |



# Employee 1 Incentive Worksheet

| INCENTIVE PROGRAM FOR ELECTRICAL CONTRACTOR FIELD LABOR | | | | | | | |
|---|---|---|---|---|---|---|---|
| Name: | 03EDW150 | | | Evaluation Date: | | | |
| **General Categories** | | | | | | | |
| **Profitability & Schedule** | | | | | | | |
| | **Job 1** | **Job 2** | **Job 3** | **Job 4** | **Job 5** | **Totals** | |
| Total Profit | 746,438 | 51,829 | 35858 | 70296 | 90372 | 994793 | |
| Planned Profit | 311,628 | 24,927 | 7482 | 18906 | 11523 | 374466 | |
| Percent Gain | 2.40 | 2.08 | 4.79 | 3.72 | 7.84 | | |
| Hours per job | 850.5 | 286 | 200.5 | 218 | 97.5 | 1652.5 | |
| Weight Factor | 3 | 3 | 3 | 3 | 3 | | |
| Hours/Total Hours | 0.42525 | 0.143 | 0.10025 | 0.109 | 0.04875 | | |
| Points | 3.06 | 0.89 | 1.44 | 1.22 | 1.15 | | |
| | | | | | | | |
| Planned Schedule (hours) | 1 | 1 | 1 | 1 | 1 | 5 | |
| Actual Schedule (hours) | 1 | 1 | 1 | 1 | 1 | 5 | |
| Comp. of Proj. (% variance) | 1 | 1 | 1 | 1 | 1 | | |
| Weight Factor | 0 | 0 | 0 | 0 | 0 | | |
| Points | 0 | 0 | 0 | 0 | 0 | | |
| | | | | | | | |
| Total Points: | 7.75 | | | | | | |
| **Safety** | | | | | | | |
| | **Total** | **Points** | | | | | |
| No. of Safety Mtgs | 3 | 6 | | | | | |
| Add'l Safety Classes | | 0 | | | | | |
| No. of lost time accidents | 1 | -2 | | | | | |
| | | | | | | | |
| Total Points: | 4 | | | | | | |
| **Job Tasks** | | | | | | | |
| | **Total** | **Points** | | | | | |
| No. of Required Tasks | 2 | 6 | | | | | |
| (completed satisfactorily) | | | | | | | |
| | | | | | | | |
| Total Points: | 6 | | | | | | |
| **Marketing** | | | | | | | |
| | Total | Points | | | | | |
| No. of presentations | 0 | 0 | | | | | |
| No. of successful pres. | 0 | 0 | | | | | |
| No. of non pub. projects | 0 | 0 | | | | | |
| No. of non-pub. project-succ. | 0 | 0 | | | | | |
| | | | | | | | |
| Total Points: | 0 | | | | | | |

# Employee 1 Incentive Worksheet (continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Discretionary Categories** | | | | | | | |
| **Education and Training** | | | | | | | |
| | Total | Points | | 0-2 yrs | 0 | | |
| Certifications | 1 | 1 | | 2-5 yrs | 0 | | |
| Years of Service with Company | 11 | 3 | | 5-10 yrs | 0 | | |
| Outside Training | 1 | 1 | | 10-20 yrs | 3 | | |
| | | | | 20+ yrs | 0 | | |
| Total Points: | 5 | | | Total | 3 | | |
| **Attire** | | | | | | | |
| | Points | | | | | | |
| Appropriate attire Worn | 1 | | | | | | |
| (Always=2,Often=1,Sometimes=0, Rarely=-1, Never=-2) | | | | | | | |
| Total Points: | 1 | | | | | | |
| **Client Feedback** | | | | | | | |
| | Points | | | | | | |
| Client Feedback | 1 | | | | | | |
| (Very positive=2, positive= 1, neutral= 0, negative=-2) | | | | | | | |
| | Number | Points | | | | | |
| Client Formal Compliant | 0 | 0 | | | | | |
| Total Points: | 1 | | | | | | |
| **SUMMARY** | | | | | | | |
| Total General Points: | 17.75 | | | | | | |
| Total Discretionary Points: | 7 | | | | | | |
| Total Points: | 24.75 | | | | | | |
| TOTAL POINTS FOR ALL FIELD EMPLOYEES IN PLAN: | | | | 1000 | | | |
| | | TOTAL BONUS POOL: | | 355,395.00 | | 22.5 | % of |
| | | VALUE PER POINT: | | 355.40 | | total company profit | |
| | | 03EDW150 BONUS: | | 8,796.73 | | | |

# Employee 2 Incentive Worksheet

**INCENTIVE PROGRAM FOR ELECTRICAL CONTRACTOR FIELD LABOR**

**Name:** 03MED001 **Evaluation Date:**

**General Categories**

**Profitability & Schedule**

| | Job 1 | Job 2 | Job 3 | Job 4 | Job 5 | Totals |
|---|---|---|---|---|---|---|
| Total Profit | 746,438 | 51,829 | 35858 | 45387 | 27278 | 906790 |
| Planned Profit | 311,628 | 24,927 | 7482 | 34394 | 25303 | 403734 |
| Percent Gain | 2.40 | 2.08 | 4.79 | 1.32 | 1.08 | |
| Hours per job | 732 | 251 | 43.5 | 114 | 141 | 1281.5 |
| Weight Factor | 3 | 3 | 3 | 3 | 3 | |
| Hours/Total Hours | 0.366 | 0.1255 | 0.02175 | 0.057 | 0.0705 | |
| Points | 2.63 | 0.78 | 0.31 | 0.23 | 0.23 | |
| | | | | | | |
| Planned Schedule (hours) | 1 | 1 | 1 | 1 | 1 | 5 |
| Actual Schedule (hours) | 1 | 1 | 1 | 1 | 1 | 5 |
| Comp. of Proj. (% variance) | 1 | 1 | 1 | 1 | 1 | |
| Weight Factor | 0 | 0 | 0 | 0 | 0 | |
| Points | 0 | 0 | 0 | 0 | 0 | |

Total Points: 4.18

**Safety**

| | Total | Points |
|---|---|---|
| No. of Safety Mtgs | 3 | 6 |
| Add'l Safety Classes | 1 | 2 |
| No. of lost time accidents | 0 | 0 |

Total Points: 8

**Job Tasks**

| | Total | Points |
|---|---|---|
| No. of Required Tasks (completed satisfactorily) | 2 | 6 |

Total Points: 6

**Marketing**

| | Total | Points |
|---|---|---|
| No. of presentations | 0 | 0 |
| No. of successful pres. | 0 | 0 |
| No. of non pub. projects | 0 | 0 |
| No. of non-pub. project-succ. | 0 | 0 |

Total Points: 0

# Employee 2 Incentive Worksheet (continued)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Discretionary Categories** | | | | | | | |
| | | **Education and Training** | | | | | | | |
| | | | Total | Points | | 0-2 yrs | 0 | | |
| | | Certifications | 2 | 2 | | 2-5 yrs | 1 | | |
| | Years of Service with Company | | 3 | 1 | | 5-10 yrs | 0 | | |
| | | Outside Training | 0 | 0 | | 10-20 yrs | 0 | | |
| | | | | | | 20+ yrs | 0 | | |
| | | Total Points: | 3 | | | Total | 1 | | |
| | | **Attire** | | | | | | | |
| | | | Points | | | | | | |
| | Appropriate attire Worn | | 2 | | | | | | |
| | | (Always=2,Often=1,Sometimes=0, Rarely=-1, Never=-2) | | | | | | | |
| | | Total Points: | 2 | | | | | | |
| | | **Client Feedback** | | | | | | | |
| | | | Points | | | | | | |
| | | Client Feedback | 0 | | | | | | |
| | | (Very positive=2, positive= 1, neutral= 0, negative=-2) | | | | | | | |
| | | | Number | Points | | | | | |
| | Client Formal Compliant | | 1 | -1 | | | | | |
| | | Total Points: | -1 | | | | | | |
| | | **SUMMARY** | | | | | | | |
| | | Total General Points: | 18.18 | | | | | | |
| | Total Discretionary Points: | | 4 | | | | | | |
| | | Total Points: | 22.18 | | | | | | |
| | TOTAL POINTS FOR ALL FIELD EMPLOYEES IN PLAN: | | | | | 1000 | | | |
| | | | | TOTAL BONUS POOL: | | 55,395.00 | | 22.5 | % of |
| | | | | VALUE PER POINT: | | 355.40 | | total company profit | |
| | | | | 03MED001 BONUS: | | 7,882.39 | | | |

# Employee 3 Incentive Worksheet

**INCENTIVE PROGRAM FOR ELECTRICAL CONTRACTOR FIELD LABOR**

**Name:** 03ARR100 **Evaluation Date:**

**General Categories**

**Profitability & Schedule**

| | Job 1 | Job 2 | Job 3 | Job 4 | Job 5 | Totals |
|---|---|---|---|---|---|---|
| Total Profit | 202,578 | 99,087 | | | | 301665 |
| Planned Profit | 75,571 | 85,434 | | | | 161005 |
| Percent Gain | 2.68 | 1.16 | ERR | ERR | ERR | |
| Hours per job | 691 | 310.5 | | | | 1001.5 |
| Weight Factor | 3 | 3 | 0 | 0 | 0 | |
| Hours/Total Hours | 0.3455 | 0.15525 | 0 | 0 | 0 | |
| Points | 2.78 | 0.54 | ERR | ERR | ERR | |
| | | | | | | |
| Planned Schedule (hours) | 1 | 1 | | | | 2 |
| Actual Schedule (hours) | 1 | 1 | | | | 2 |
| Comp. of Proj. (% variance) | 1 | 1 | ERR | ERR | ERR | |
| Weight Factor | 0 | 0 | 0 | 0 | 0 | |
| Points | 0 | 0 | ERR | ERR | ERR | |

Total Points: 3.32

**Safety**

| | Total | Points |
|---|---|---|
| No. of Safety Mtgs | 2 | 4 |
| Add'l Safety Classes | 0 | 0 |
| No. of lost time accidents | 1 | -2 |

Total Points: 2

**Job Tasks**

| | Total | Points |
|---|---|---|
| No. of Required Tasks (completed satisfactorily) | 2 | 6 |

Total Points: 6

**Marketing**

| | Total | Points |
|---|---|---|
| No. of presentations | 1 | 1 |
| No. of successful pres. | 1 | 2 |
| No. of non pub. projects | 0 | 0 |
| No. of non-pub. project-succ. | 0 | 0 |

Total Points: 3

Employee 3 Incentive Worksheet (continued)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Discretionary Categories** | | | | | | | |
| | | **Education and Training** | | | | | | | |
| | | | Total | Points | | 0-2 yrs | 0 | | |
| | | Certifications | 1 | 1 | | 2-5 yrs | 0 | | |
| | | Years of Service with Company | 16 | 3 | | 5-10 yrs | 0 | | |
| | | Outside Training | 1 | 1 | | 10-20 yrs | 3 | | |
| | | | | | | 20+ yrs | 0 | | |
| | | Total Points: | 5 | | | Total | 3 | | |
| | | **Attire** | | | | | | | |
| | | | Points | | | | | | |
| | | Appropriate attire Worn | 1 | | | | | | |
| | | (Always=2,Often=1,Sometimes=0, Rarely=-1, Never=-2) | | | | | | | |
| | | Total Points: | 1 | | | | | | |
| | | **Client Feedback** | | | | | | | |
| | | | Points | | | | | | |
| | | Client Feedback | 1 | | | | | | |
| | | (Very positive=2, positive= 1, neutral= 0, negative=-2) | | | | | | | |
| | | | Number | Points | | | | | |
| | | Client Formal Compliant | 0 | 0 | | | | | |
| | | Total Points: | 1 | | | | | | |
| | | **SUMMARY** | | | | | | | |
| | | Total General Points: | 14.32 | | | | | | |
| | | Total Discretionary Points: | 7 | | | | | | |
| | | Total Points: | 21.32 | | | | | | |
| | | TOTAL POINTS FOR ALL FIELD EMPLOYEES IN PLAN: | | | | 1000 | | | |
| | | | | TOTAL BONUS POOL: | | 55,395.00 | | 22.5 | % of |
| | | | | VALUE PER POINT: | | 355.40 | | total company profit | |
| | | | | 03ARR100 BONUS: | | 7,576.54 | | | |

## REFERENCES

Berson-Besthoff, Paige and Charles Peck (1992). *Small Group Incentives: Goal-Based Pay.* The Conference Board, Report No. 1006, 1992.

Dawson, Virginia (1999). *Lincoln Electric: A History.* History Enterprises Inc., Cleveland, 1999.

Gores, James (1999). "How Effective Is Your Incentive Compensation System?" *Journal of Management in Engineering.* January/February 1999.

Hessen, Corey (2000). "Using an Incentive Compensation Plan to Achieve Your Firm's Goals." *Journal of Management in Engineering*, May/June 2000.

Huff, Aaron. "Full speed ahead". *etrucker.com*, www.etrucker.com/apps/news/article.asp?id=17618, October 11, 2002.

Kelley, Sean. "Sharing the wealth." *etrucker.com*, www.etrucker.com/apps/news/article.asp?id=16006, October 11, 2002.

Kohn, Alfie (1999). *Punished by Rewards.* Houghton Mifflin Company, New York, 1999.

McKenzie, John (2000). "The 2000 Profile of the Electrical Contractor." *Electrical Contractor*, Vol. 65, No. 6, June 2000.

McKenzie, John and Donna Bailey (2001). "2001 Guide to the Electrical Contracting Market." *Electrical Contractor*, 2001.

National Electrical Contractors' Association (2000). Electrical Contractors' Financial Performance Report. Industry Insights, Inc. Columbus, 2000.

Nicholas, Jess. "Driver retention, character move to the forefront." *etrucker.com*, www.etrucker.com/apps/news/article.asp?id=1147, October 11, 2002.

Parker, Glenn, Jerry McAdams and David Zielinski (2000). *Rewarding Teams*. Jossey-Bass Inc. San Francisco, 2000.

Peck, Charles and Deborah Parkinson (1995). *Individual Incentive Programs*. The Conference Board, Report No. 1127-95-RR, 1995.

Sibson, Robert E (1990). *Compensation 5th edition.* American Management Association, New York, 1990.